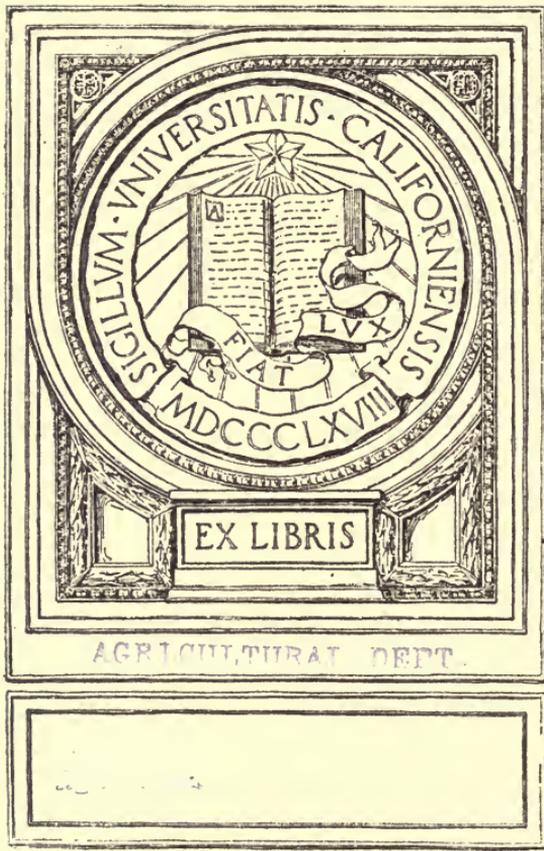


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PARIS UNIVERSAL EXPOSITION, 1867.
REPORTS OF THE UNITED STATES COMMISSIONERS.

REPORT

UPON

C O T T O N ,

BY

E. R. MUDGE,
UNITED STATES COMMISSIONER,

WITH A

SUPPLEMENTAL REPORT,

BY

B. F. NOURSE,
HONORARY COMMISSIONER.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1869.



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ERRATUM.

Page 19, line 18, for “adequate,” read *inadequate*.

COTTON.

REPORT OF THE SUB-COMMITTEE.

FROM THE COMMITTEE ON RAW MATERIALS AND THE MANUFACTURE THEREOF, ETC.

The few samples of cotton exhibited from the United States were not worthy of special mention as representing this great staple. The "Cotton Supply Association" of Manchester, England, had, however, prepared and sent to the Exposition some cases, in which were arranged, suitably for comparison and contrast, samples of all the cotton of the world—that is to say, samples from every country and of every kind from each country, whence was produced the cotton which made up the commercial supply of the world for the past year. The Committee regarded this, as in itself, a literal and truthful exhibition of the cotton "of all nations," and therefore a better and more convincing report than anything descriptive that could be written to show the present position of our country in relation to others in cotton growing. By the aid and courtesy of the secretary of the Manchester Cotton Supply Association, a similar collection of samples, but more full and complete, was prepared at Manchester by request of the Committee, and is hereby submitted in connection with this report, and with the suggestion that the two cases containing the collection be placed for preservation and reference in one of the public offices at Washington. In the two cases are 154¹ samples from more than 40 different countries or localities, and 12 samples of cotton seed.

During the progress of our civil war the scarcity of cotton carried prices very high, reaching in Liverpool to 31*d.* per pound for middling Orleans, and 24*d.* for fair Surats. The high prices and extraordinary demand thus created caused and extended the cultivation of cotton throughout the world wherever the proper physical conditions existed.

In 1860 the cotton product of the United States supplied home consumption, and 85 per cent. of that of Europe.

In 1864 the United States imported cotton from Liverpool and from some producing countries, and of the consumption of Europe less than 10 per cent. was of the growth of the United States.

Two remarkable effects resulted during this period: first, the improvement and adaptation of machinery for spinning the short staples of India, China, Japan, &c.; second, an improvement, still more important as favoring their use in the place of American cotton, obtained in the character of their staple by the use annually of American or Egyptian seed. This change of seed has produced in the east cotton which approaches

¹ See list of these appended hereto.

closely our upland cotton in spinning value. A further change for the better has been made in the preparation for market of the great bulk of India cotton, which formerly was so badly charged with field waste and other dirt that the classifications of American cotton could not be applied to it.

This adulteration has been lessened very materially. Thus it appears that the improved character of the cotton, in staple and cleanliness, concurs with the improved machinery and methods of use, to make India cotton approximate much nearer the value of American cotton for all coarse and medium work than before the war.

British India is our chief competitor in supplying the world with cotton. We have noticed their relative improvement during our disability. It should be noted here that our country offers a higher price for labor than any other. The cotton-growing States cannot be an exception. Other countries that produce cotton to any considerable extent, such as Egypt and India, have labor at the lowest price—that of a cheap subsistence. The position of the planter in America should be contrasted with that of the planter in India, both hiring labor, the one at the practical cost of \$25 per month, the other at a cost of \$25 per year. A like contrast should be made between the ryot of India and the farmer of America, such as it is hoped and believed will be most of our southern citizens, both white and black, who have no labor but their own and their families, when the only salable product of their few acres shall no longer be taxed.

The annual cotton statistics of the United States are made up to 1st September. It is the point of time between the old crop just gone and the new crop just coming in. It is a fair time at which to take the annual average price.

Middling cotton was worth in New York—

	1861.	1862.	1863.	1864.	1865.	1866.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
September 1	22	52	67	187	45	35
Average of the year ending September 1	18	43½	76	117	60	38

Owing to the great fluctuations in the rates for sterling exchange, or gold, the price at New York varied from that in Liverpool, where cotton statistics are made at the end of the year, when the price was for middling Orleans:

	1861.	1862.	1863.	1864.	1865.	1866.
	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>
December 31	12	22	27½	27	21	15
Average of year	7½	16	23½	26½	19	15½

For the five years, 1856-'60, the average consumption of cotton in the world was, per annum—

In Europe.....	3,755,000 bales, or 1,574,700,000 pounds.
In the United States	720,000 bales, or 331,300,000 pounds.
Total amounts.....	<u>4,475,000 bales, or 1,906,000,000 pounds.</u>

Of which was grown in the United States 3,585,000 bales, or 1,606,000,000 pounds, equal to 84.26 per cent. of the whole.

In 1864 the whole import of cotton into Great Britain was 2,587,000 bales, of which only 197,000 bales, or less than eight per cent. (7.62) were of United States growth; while other countries supplied 92.38 per cent., or 2,390,000 bales, so rapid was the increase in their production.

In 1865 and 1866, countries other than the United States supplied 83.28 per cent. and .69 per cent. respectively, or 2,293,000 bales, out of an import of 2,755,000 bales, and 2,587,000 out of an import of 3,750,000, notwithstanding that 50 per cent. had been lost from the highest price, or from 31 pence per pound in 1864 to 20 pence in 1865, and 15½ pence in 1866.

At this time (August, 1867) the value of cotton is still declining. In England the decline encountered already since the close of our war has been most disastrous to importers and others dealing in cotton; and it is believed that prices will fall to or below seven pence per pound for fair Dhollerah, (Surats,) and nine pence per pound for middling New Orleans, which last price would be equivalent to 20 cents per pound in New York, or 19 cents per pound in New Orleans. The import to Europe (principally to Great Britain) from India is already large, and will probably exceed 1,500,000 bales for this year, or nearly the same as last year; while the crop of the United States for 1866-'7, including the stock remaining September 1, 1866, will hardly exceed 2,000,000 bales, from which 700,000 must be taken for home use, leaving for export only 1,300,000 bales, or less than the supply to Great Britain from India alone.

Thus it appears that while prices have fallen so far, and are yet falling from year to year, the production of cotton in other countries is continued on a scale so large that a large surplus remains over at the end of each year, and the United States crop supplies only about 35 per cent. of the European consumption.

It is estimated that our crop this year will be more than 2,500,000 bales, if the picking season be favorable, and that other countries will produce as much as the average of the last three years, if not more, which may be shipped to Europe in greater or less quantities, as the prices shall be higher or lower. Should these estimates be sustained by the fact, it seems to follow as a necessity of the bad state of the trade that prices shall decline to a range below a just value in view of the probable future supply, and far below the cost to the planter who has hired labor to make his crop. For the moment, the effect of so great

cheapening of prices is to lessen the demand instead of increasing it, because the business of manufacturers, which is the source of demand for consumption, is itself suffering and unprofitable under a great decline in the value of their products, and the trade insists upon further concession in view of the present and impending decline in the raw material.

Suppose cotton shall decline to 20 cents per pound for middling in New York. This would return to the planter only 16 cents on his plantation, and the planter who has been able to make his crop with hired labor at a cost not exceeding 16 cents must have had very favorable conditions.

If the price shall be only 16 cents in New York, (which should not be regarded as impossible in view of the possible supply, and the fact that the average price before the war was for many years below 10 cents,)—if the price shall be only 16 cents in New York, or 12 cents to the planter, he cannot pay his hired laborers with the entire net proceeds.

A tax of $2\frac{1}{2}$ cents per pound on 16 cents, if the planter shall get so much, is equal to $15\frac{5}{8}$ per cent. and on 12 cents is $20\frac{5}{8}$ per cent.¹

When the first excise tax of 3 cents per pound was laid upon cotton, middling American cotton was worth 50 cents per pound. At such a price there would have been great profit in cotton growing, if fair crops were obtained, and the tax would have been lightly felt. The price fell to 35 cents the following year, notwithstanding such a failure of the crop as left that price unremunerative, and at the close of the last session Congress reduced the tax to $2\frac{1}{2}$ cents per pound.

When Congress again assembles the price of the new crop will be known, and the proportion which $2\frac{1}{2}$ cents per pound bears to it.

During many years the English manufacturers have sought to extend and improve cotton planting in various countries. In promoting this object the Manchester Cotton Supply Association has been the chief, as it has been the most able and efficient, agency. Its thorough organization for gathering and transmitting information to and from all parts of the world prepared it for the emergency occasioned by our war, when it was necessary, by prompt diffusion of information, encouragement, seeds, machinery, &c., to avert the threatened exhaustion of the supply of this important material, and mitigate the evils of its scarcity.

All the energy and perseverance of this association, guided by wise counsels and unceasing experiments, supported by the wealth it could combine with the favor and assistance of the British government, had failed to achieve success in introducing the culture of cotton anywhere, or to extend it where previously existing, as in British India, so as to compete in any appreciable degree with the cotton product of the United States.

¹ In proof that this industry cannot bear this tax, it is only necessary to call attention to the samples of India cotton, which, when selling in Liverpool at 5*d.* per pound, returns to the ryot producer in India only 2*d.* Upon this price $2\frac{1}{2}$ cents per pound is equal (at 135 for sterling) to 1*d.* or 50 per cent., and that advantage or premium is offered to the Indian producer by our tax system.

It has been demonstrated that no advantages of cheapness of labor elsewhere could counterbalance our advantages of soil and climate for cotton-growing, so long as we had labor well organized at low cost. We lost our position; it remains to be seen if we can regain it. Short as was the time, 1861 to 1865, it sufficed to work out wonderful results by the extraordinary power of price in forcing cotton-growing. Excessive production and supply must so reduce price as to lessen production and enlarge consumption. Shall the cotton product of the United States be reduced as in other countries? or shall our natural advantages be improved to restore this great industry to its proper pre-eminence? This, it is believed, depends almost entirely upon the legislation by Congress. Should an excise tax be continued, it is very evident that production in the United States, being unprofitable and burdened, must fall away until scarcity shall again cause high prices; whereas, without the tax, the southern people can successfully compete with the world, and more than recover the old monopoly of supply.

Having carefully observed what has been done and is doing by other nations, the Committee present the following conclusions:

1. That cotton-growing in our southern States, if untaxed, can be conducted profitably and successfully as against all competition elsewhere.

2. That if burdened by a tax sufficient to be worth to the treasury the cost of its collection, it cannot at present, if ever, be successfully prosecuted.

3. That, already familiar to our people in all its details, it is the only industry immediately available and practicable, to the great body of the laboring population of the south, for the profitable employment of surplus labor; that is, beyond the necessities of crops for subsistence, in the production of something salable and exchangeable, whereby wealth can be regained; and,

4. That the importance of a large production of cotton as the chief export of the country in adjusting balances of trade and exchanges, and especially in its bearing upon the future position of the public debt, so largely held and to be held abroad, cannot well be overstated, and so far transcends the value of the present tax, that to preserve the latter at the cost of losing the former would be a "ha'penny-worth of wisdom to a pound of folly."

In conclusion, the Committee desire to acknowledge their indebtedness to B. F. Nourse, esq., of Boston, for the very valuable statistics furnished by him, and which they have adopted, as coming from a source entitled to the highest consideration, his long acquaintance and connection with the cotton trade of the United States having given him unsurpassed opportunities for obtaining correct information.

Respectfully submitted.

E. R. MUDGE,

United States Commissioner, Paris Exposition.

PARIS, August 2, 1867.

List of cotton samples referred to in the report of the Committee.

SOUTH PACIFIC.—Feejee islands, Navigator islands, Polynesian islands, Raratonga islands, Friendly islands, Tahiti, (Society islands,) Oahu, (Sandwich Islands,) New Caledonia islands.

AUSTRALIA.—Woolloomaloo, New South Wales, Sidney, New South Wales, South Australia, North Australia, West Australia, Wide Bay, Queensland.

EASTERN ASIA.—Java, (American seed,) Java, (native seed,) Philippine islands, Shanghai, Pegee, Rangoon, Siam.

BRITISH INDIA.—Tenasserim, Assam, Indore, Palghant, Dhullen, Broach, Oomrawuttee, Hinghengahat, San Ginned Dharwar, Dharwar, (New Orleans seed,) Comptah, Ferozepur, Chandah, Salem, Madras, (Bourbon seed,) Tinneville, (Madras,) Madras, Chwyleput, (New Orleans seed,) Berar, (Egyptian seed,) Nagpore, Delhi, Shorapore, (New Orleans seed,) Shorapore, Hyderabad, Khandeish, (Berar seed,) Khandeish, (Egyptian seed,) Khandeish, (Oomrawuttee,) Kurrachee, India, (New Orleans seed,) Ceylon.

AFRICA.—Soudan, Natal, Algoa Bay, (Cape of Good Hope,) Fort Beaufort, (Cape of Good Hope,) Kaffraria, Loanda, Cape Coast, Gold Coast, Bönny river, Onitsha, Fernando Po.

INDIAN OCEAN.—Mauritius.

ASIA.—Georgia, Circassia, Caucasus, Bagdad, Mosul, Kashan, (Persia,) Jaffa, Tarsus, Smyrna, Smyrna, (New Orleans seed,) Latakeea, (Syria.)

EASTERN EUROPE.—Constantinople, Moldavia, Trebizond, Salonica, (New Orleans seed,) Thessaly, Volo, Volo, (New Orleans seed,) Serres, Mytilene, Aleppo, Enos, Larnica.

SOUTHERN EUROPE.—Laconia, (Greece,) Patras, (Sea Island seed,) Patras, (Egyptian seed,) Patras, (New Orleans seed,) Sassano, Italy, (Sea Island seed,) Terra di Otranto, (Siamese seed,) Marcerata, Italy, (New Orleans seed,) Catania, Sicily, (Nankeen,) Naples, (Sea Island seed,) Valencia, Malta.

NORTHERN AFRICA.—Egypt, Egypt, (New Orleans seed,) Algiers, Bona, (Algiers,) Rabat, (Morocco,) Mazogan, (Morocco,) Madeira.

SOUTH AMERICA.—Lima, (Peru,) Paita, (Peru,) Callao, (Peru,) Taena, (Peru,) Bolivia, Paraguasu valley, (Bolivia,) Maranham, Maccio, Pernambuco, Soracoba, (Brazil,) Rio Grande do Sol, Ceara, Suo Paulo, (Brazil,) Ecuador, San Luis, Estardo, (Bolivia,) Berbice, Demérara, Venezuela, Costa Rica, Guatemala, New Granada, Paraguay, Rosario, (Argentine Confederation,) Buenos Ayres, Salto, Catamania, (Argentine Confederation,) Maracaibo, Salvador, Honduras, Yucatan, (Mexico.)

WEST INDIES.—Jamaica, Cuban Vine, (Jamaica,) Jamaica, (Sea Island seed,) St. Kitts, Trinidad, St. Thomas, Tortola, St. Bartholomew, Dominica, Tobago, Porto Rico, Bahamas, Antigua, Turk's Island, St. Domingo.

UNITED STATES OF AMERICA.—Sea islands, New Orleans, Mobile, Uplands.

Also samples of 12 kinds of cotton seed.

SUPPLEMENTARY REPORT.

CHAPTER I.

THE PRESENT CONDITION OF THE COTTON CULTURE IN THE UNITED STATES.

REPEAL OF THE COTTON TAX AND ITS EFFECT—THE PLANTING IN 1863—ESTIMATED CROP OF 1868-'69 AND ITS CONSEQUENCES—DEFICIENCY IN THE COTTON SUPPLY—THE FUTURE PRODUCT—PAST ACCUMULATION—PRESENT AND FUTURE INCREASE OF WEALTH IN THE COTTON STATES—OPPORTUNITY FOR COTTON-SPINNING—WANT OF LABORERS—LARGE PLANTATIONS MUST GIVE PLACE TO SMALL COTTON FARMS—RESTORATION OF WORN-OUT SOILS—THE SOUTH CAROLINA PHOSPHATES—IMPROVEMENTS—SELECTION OF SEED, ETC.

THE CHANGE SINCE 1867.

Since the first part of this report was prepared, in the summer of 1867, nearly eighteen months have passed, which cover one of the most interesting and instructive periods in the history of the culture of cotton in America.

For a better comprehension of the important facts, and the lesson which they convey, it is well to recur briefly to some points set forth in that first report, which, having stated the unfavorable circumstances attending the cotton trade in the latter half of the year 1867, predicted a further decline in prices in Liverpool "to or below 7d. per pound for *fair Dhollera*, (Surat,) and 9d. per pound for *middling New Orleans*, which last would be equivalent to 20 cents in New York." It also stated that this price in New York "would return to the planter only 16 cents on the plantation," and that "if the price shall be only 16 cents in New York, or 12 cents to the planter, he cannot pay his hired laborers with the entire net proceeds." The event gave singular confirmation to the anticipations thus expressed. Under the depressing influences then in force, cotton declined in price until December, 1867, when *fair Dhollera* was sold in Liverpool at 5½d., and *middling New Orleans* was sold there at 7¾d., and in New York at 16 cents per pound. The first half of the cotton crop of the United States for 1867-'68 was sold by the planters for less than its cost of production.

The crop of that year was much less in its yield per acre than the average of crops before the war. In the southwest it was reduced by spring overflows and other disasters, while labor was engaged at high prices for inefficient and irregular service in the greater part of the cotton-growing region. The relation of employer and employed had not

found its proper adjustment. Thus it happened that the second of the free-labor crops of cotton was deficient in yield for the area cultivated, and was a very costly one to the producer; yet, up to the middle of January, 1868, it was selling, as above stated, for less than the average cost of its production. Then it was subject to the internal revenue tax of $2\frac{1}{2}$ cents per pound; a burden too great to be borne, when cotton was selling at 10 to 13 cents, tax paid.

The production of a good crop of cotton requires the effectual preparation of the land during the fall and winter by cleaning, fencing, ploughing, &c. The beginning of this work may not be deferred beyond January; yet, just then everything seemed to conspire together for the discouragement of cotton-planting in our country, and to prevent the needful preparation even for one more crop. No other available productive industry offered itself instead, and there was a widespread gloom, almost despondency, throughout the south, aggravating the discomforts of the poorer people, white and black, who in many districts lacked sufficient food and clothing.

REPEAL OF THE COTTON TAX AND ITS EFFECT.

It was at this juncture that Congress repealed the cotton tax. The expediency and necessity of that legislation had been stated by this committee in the first part of their report, and they find eminent satisfaction in presenting now a statement of its immediate effects in the development of prosperity and comfort within the cotton-growing States exceeding the most sanguine expectations.

It was the turning point. The mistake of continuing that tax would have been potent for evil and forbidding the hope of improvement, while the act for its repeal was charged with blessings and benefits, operative now and for all time, for the people of the south, indeed, but scarcely more than for the people of all other sections of the common country.

It made sure to the former the restoration of their monopoly of the cotton supply of the world, and opened the way to a rapid improvement in their condition, by the increase of wealth and development of industrial power and resources beyond precedent, if the opportunities shall be reasonably improved.

It had been argued that the repeal of the tax, as encouraging the culture of cotton, would further depress its price in the market.

It proved otherwise. The price was adjusted in the relations of the existing supply and demand. Almost coincident in time with the act of repeal, cotton began to improve in market value. This occurred early in January, and before the end of April *middling New Orleans* cotton was worth 33 cents in New York and $13\frac{1}{2}d.$ in Liverpool, an advance from December of nearly 100 per cent.

THE PLANTING IN 1868.

Meanwhile the preparation for planting was going on under the renewed encouragements given by these changes of law and of market.

Before the war, the general custom of planters was to obtain from their factors or bankers, usually the former, an advance of money, enough to obtain the year's supplies and cover the probable expenses of making the crop, to be repaid upon sale of the cotton.

The destruction of property and the losses by the war in the south had impoverished the people, and disabled, to a great extent, the whole body of planters. Two years of experiment in planting under a new system of labor, and mainly upon money borrowed under pledge of the crop or plantation, or both, had resulted in the exhaustion of credit as well as capital. Planters without money; factors and bankers unable or unwilling any longer to supply it; and laborers needing employment to obtain supplies of the necessaries of life: such was the position in January when work began for planting the crop of 1868-'69.

One other material fact, bearing upon the position of American cotton-planting as it stood in January, 1868, should be mentioned here.

The adversities of the two years preceding had fallen upon both planters and hired laborers, and had not been without their uses. The freedmen had learned that liberty did not carry the right to be idle or unfaithful, and that the coveted citizenship had its duties as well as its privileges; while the planters had been learning that the almost universal opinion expressed in the phrase "the negro will not work" (as a freeman) was a mistake, and that it was practicable to make a cotton crop with free labor if only the proper understanding could be established. Interference had in a good degree ceased, and the two parties specially interested came together under a common interest, which to one, if not both, was as imperative as necessity. Here was the beginning of the practical recognition of the true relations of labor and capital, which only need to be fully and intelligently applied throughout the south, among both races, and guided by an enlightened sense of public and private justice, to secure to the southern States the full benefit of the superior climate, soil, and mineral and other resources with which they have been endowed by nature. These, rightly used, will bring increase of population, wealth, education, refinement; and these again will develop a strength and power impossible under the system which was displaced for this better one, the first fruits of which are now to be considered.

The sanguine hopes which attended the planting of 1866 and 1867 were all gone when the work of preparation became necessary in January 1868. There was the one encouragement given by the act of Congress, that whatever cotton should be produced after 1867 would be exempt from all direct tax. Planters could not repeat the offers of high wages current in the previous two years. Yet the lesser wages and shares of crop which they did offer were more readily accepted and better earned by their hired people than the greater wages of those previous years. As the planting progressed, the remark came from all quarters: "The freedmen are working well."

It is to be assumed that the area of land put under preparation for cotton under the discouraging circumstances which have been described, was less than would have been planted by the same persons under more favorable conditions, and far less than the labor of the country was capable of working well. However, the price of cotton continued to advance up to May, and doubtless the better promise of the future value thus given co-operated with the increased strength derived from the higher prices at which the last third of the crop of 1867-'68 was sold to extend the planting to a late period in the spring.

Late planted cotton is exposed to injuries from caterpillar, early frost, &c., which are escaped by the early planted portion by reason of its more mature condition. In the States east of the Alabama river the season has been unfavorable compared with that of 1867, and the crop promises to fall short of the crop of that year by 20 per cent. In the southwest, on the contrary, the season has been more propitious, and the promise is of a material increase upon the preceding crop.

THE ESTIMATED CROP 1868-'69—ITS CONSEQUENCES.

The total culture of cotton from the planting of 1868 (crop of 1868-'69) is estimated at 2,300,000 to 2,700,000 bales. Taken at the mean, say 2,500,000 bales, and at the average value in southern markets now, January 1, 1869, the crop is worth \$270,000,000, and the people of the States producing it can sell from it to the value of more than \$260,000,000, after supplying their own wants, (say 90,000 bales.) Further, appropriate for use in the northern and western States, 950,000 bales, worth \$100,000,000, making a total of 1,040,000 bales retained for home use, and there would remain for export to foreign countries 1,450,000 bales, of currency value exceeding \$155,000,000, sufficient to supply, at gold rates, about \$115,000,000 value in foreign exchange. If to this extraordinary result be added the value of the sugar, rice, tobacco, hides, wool, naval stores and other saleable productions of the cotton-growing States, besides food crops more than enough for subsistence, and the whole be considered as the product of the industry of a people so enfeebled, poor, and disheartened only a twelve month ago, it seems marvellous indeed. And this result has been achieved by the agricultural people of the south relying upon their own resources, and incurring very little debt outside the plantation.

The agricultural interest of the south has won its independence. It matters not how the proceeds of all these crops shall be divided between the landholder and the laborer, (except as to the wisdom of future use,) so that there shall be this actual addition of wealth or buying power that is represented in the value of productions sold above the amount paid for articles consumed. This excess is profit, and this profit is hereafter to be reckoned by hundreds of millions of dollars annually.

THE FUTURE PRODUCTION OF COTTON.

PRESENT DEFICIENCY IN COTTON SUPPLIES.

The fact stands clearly demonstrated that the supply of cotton is not equal to the wants of the world. During the year ending September 30, 1868, the consumption of cotton in Europe and America exceeded the supplies brought in by about 500,000 bales, which was made good by drawing down to that extent the stocks with which the year began. This apparent deficiency would have been reduced 100,000 to 200,000 bales if the Indian crop had come forward as early as usual. Yet the fact of insufficient supply remains. Nor can the probable supply of the year ending September 30, 1869, be enough to prevent a similar, though, perhaps, smaller demand upon the already reduced reserves, if consumption shall go on at the rate of the year past. The reserves, or stocks in mills and markets with which the year began, (October 1, 1868,) were too small to bear another such draft upon them as was made by the deficiency of last year.

It follows that consumption must be checked, and probably by the force of high prices resulting from the competition to secure the larger and better portion of the cotton in market.

The American crop of 1868-'69 is moving off at the high prices thus secured. The circumstances attending the planting of the crop of 1869-'70 are in many respects quite the opposite of those of last year.

There is every inducement to plant as much cotton as possible, and money is abundant from the proceeds of the crop now selling. Should the season be favorable, a considerable increase upon the yield of 1868 is to be expected. The check to be given to the consumption of cotton by its scarcity and high price this season, must reduce the supply of cotton fabrics in market, and thus induce a larger demand in the ensuing season. It may well be that, under the present very high prices, the production of cotton in all the world during the present year will overrun the consumption for a time; if so, a fall of prices will soon enlarge the latter, because cheap goods extend the markets for them. Of the present crop only about 1,250,000 bales (1,000,000 of the receipts at ports, and 250,000 bales by inland routes to the mills) have been sold by the growers, (January 1, 1869;) and it is already announced that they hold the remainder free of debt, and are seeking investments for their money. In proof of this, attention has been called to the recent considerable advance in the value of the shares in all the active and dividend-paying railroads, manufactories, and banks. One of the leading cotton brokers of New York, in his circular for Europe, after noticing the facts above referred to, says: "We believe, also, that hereafter planters will market their own crops, early or late, as may appear to them most advantageous for their own interest. Their ability to do so is much greater now than before the war. Manchester spinners will do well to make a note of this."

THE PLANTING FOR THE CROP OF 1869-'70 AND THE FUTURE.

Inducements to large planting will open employment to every person able and willing to work, and may renew a hurtful competition for labor, leading to excessive wages. All this, however, must be left to adjust itself under the operation of demand and supply, and further results will complete the imperfect demonstration of the past year, that cotton-growing by labor left free to assert its own price, and not burdened by unwise imposts, is cheaper and more profitable to the individual planter than planting by slave labor could be under its most favorable circumstances, while the community will gain in wealth, and the best uses of wealth beyond anything conceived by men of the past generations. Other countries producing cotton will also enlarge their several contributions towards the commercial supply under these high prices and demand.

At some time, probably not distant, production so stimulated will outrun consumption, and leave a surplus beyond the want of the year large enough to depress prices extremely. Following the natural law, this must lead to a larger consumption and a reduced production.

Cotton culture will be most reduced, or cease altogether, in those countries where it has been introduced or sustained only by "war prices," and will be continued, or even increased, where most favored by natural advantages. In that competition our country has everything in its favor. The strength now accumulating will sustain our cotton production through the period of depression, and show its practical monopoly re-established for supplying cotton adequate to the wants of the commercial world. It may be, again, that prices, which will be fairly remunerative here, will be too low to sustain the cotton culture of less favored countries in comparison with other pursuits.

It was written of the southern States in 1861:¹ "The present capacity of labor applicable to cotton-growing and the land now open are equal to the annual production of 5,000,000 bales. Of the *rich* lands within the borders of the cotton States, not one-fourth have yet been cultivated. They can be made to yield any supply of cotton that the consumption of the world shall demand, up to 20,000,000 bales, of 500 pounds each, annually. Nor will labor be wanting adequate to any progressive increase of demand for cotton. Five years ago it was held to be impossible to obtain labor to handle and pick a crop of 4,000,000 bales, yet last year a crop of 4,675,000 bales was prepared and marketed. Labor is now more effective than it was twenty years ago. * * * Such are the improvements, relieving human with brute labor, substituting the *mule and plough* for the *man and hoe* in field work, and in better implements and processes, that the produce of one man's labor is nearly equal to that of three men twenty years ago; his labor is more easily performed, and the planter feeds, clothes, and insures but one instead of three.

¹ By the writer of this report.

The crop in the field is more even in growth and in the opening of the bolls, so that each hand can pick much more in a given time than formerly. The produce per acre has increased everywhere—in the fertile lands of Mississippi, and in the worn lands of Georgia and the Carolinas; the latter by use of fertilizers and more thorough working of the land. Nor has improvement ceased. It will continue as well in the manual operations and application of better husbandry and more fertilizers to the soil as in more skill and more intelligence in the laborers of each successive generation, and all more systematized. * * * This being the position of cotton-planting in the United States, having all the conditions necessary to success—climate, cheap labor, ready access to market, and ability to sustain itself at six cents per pound—what part of the world can offer to compete with them?

“Suppose a succession of unfavorable seasons, or other contingency, shall cut down the American supply, and prices so advanced as to encourage cotton-planting in various other quarters; these, aided by high prices, prosper a few years and contribute sensibly in aid of the supply from India and the United States. The latter, also enjoying the high prices, extend the culture; good seasons ensue; they make large crops—5,000,000 or 6,000,000 bales. Suddenly the world is overstocked—has on hand a stock for a year or two in advance. Inevitably, prices would fall to a range ruinously low—not enough to pay the cost of preparation for market and freights from distant points. The United States planters would still go on and wait for a turn of prices in their favor. But the planting elsewhere would die out as it has before, except where sustained by a local market, as in India and China.”

True as was the statement of our superior natural advantages for cotton-growing in 1861, it is in a higher degree true now, with this remarkable difference: that in passing that “other contingency,” which “cut down the American supply and advanced prices so as to encourage cotton-planting in various other quarters,” another and cheaper labor system has been substituted.

PAST ACCUMULATION OF WEALTH FROM THE PRODUCTION OF COTTON.

During the ten years 1851–1860, the crops produced in the cotton-growing States, (cotton, sugar, tobacco, rice, &c.,) not consumed at home, left a surplus of proceeds from sales amounting to about \$1,200,000,000, an average of \$120,000,000 per year, which, less the amount required to be expended beyond their borders for the comforts or luxuries of life, should have been so much added to the reproductive capital within those States. If one-half only was thus required, the other half, or \$60,000,000 per year, should have been put to profitable use.

Throughout the southern States some internal improvement was in progress, chiefly in the form of railroads. In some States, as in Georgia, these works had been largely extended. Cheaply built and economically operated, they generally proved to be profitable investments, capa-

ble of rapidly repaying the loans incurred for their construction, which in many cases covered a great part of the cost.

A large amount of banking capital was well employed, but this, when not owned abroad, was chiefly the product of the commissions and other charges upon the produce of the country, and not to any considerable extent drawn from the accumulating capital of planters.

The capital which had built the few cotton and other factories and the machine shops had also accrued chiefly from charges upon the productions of the country. What, then, was done with the \$60,000,000, or whatever other sum represented the true annual gains of agriculture in these States? The statistics of population show pretty clearly that a great part of it was expended in importing slaves from other States.¹

PRESENT AND FUTURE INCREASE OF WEALTH IN THE COTTON STATES.

When considering this subject in its economical aspect only, special effects bearing upon individuals or classes are to be disregarded for the general results affecting the whole community.

Population is wealth. Money sent from Alabama to Virginia to increase the laboring power of Alabama, even by importing slaves at \$2,000 each, added in some degree to the wealth of that State. But if laborers of equal productive power could have been introduced without expending anything for them, the capital expended in the other case would have been saved, and the community would have gained its use in some other form of productive power, as in tools, machinery, or animal labor, with which to supplement and increase the value of manual labor. To the whole people, or the State, that is just the difference, in the *investment*, between importing a slave and importing a free laborer of equal capacity. There are other differences to the State, scarcely less important in an economical view, all in favor of the free laborer. Whatever the cotton-producing States expended for slaves above the cost of importing an equal amount of free-labor power was twice lost to the community.²

Reckoning the slaves in the cotton States prior to 1861 at 3,000,000 in number, of the average nominal value of \$500, equal to 1,000,000 full hands, at \$1,500 each, we had an investment of \$1,500,000,000; and to replenish this force a large sum, much needed for other uses, was annually drawn from the gains of those States.

If, in 1860, the people, by unanimous consent, had declared the emancipation of all those slaves, whether with or without compensation to those who had owned their service, there would have been neither loss nor gain to the community, except as the change might increase or diminish the efficiency of labor or the cost of its maintenance. There would have been no "annihilation of property," for the whole labor

¹ See Atkinson's "Cheap Cotton by Free Labor," page 30, and DeBow's Analysis of the Census of 1850, quoted in the former.

² See Appendix A, capital invested in the cotton culture.

power would have remained as before, only it would have changed owners.

Precisely so stands the effect of the decree of emancipation, made as an act of war, with this difference, however, that the laborers of both races were sadly reduced and demoralized by the incidents of the war which wrought the change. The same laboring force still exists, with the exception mentioned, and except, also, that the sudden and violent change in relations between capital and labor render further time and experience necessary to make it fully effective.

While it is indisputably true that free labor is always cheaper than slave labor, when each is under its most favorable conditions, the demonstration of that truth needs more favorable circumstances than were found in the years 1866, 1867. The prejudices of those who must use it were arrayed against it. Scarcity of food and of other necessities of life followed an exhausting war. The sufferings of the very poor of both races were alleviated by government rations and by private beneficence; but planters were compelled to supply all the wants of themselves and their laborers, while breadstuffs were at very high prices, and implements, farming animals, and their subsistence were equally scarce and dear. At first the freedmen were not disposed to work for hire—demanded excessive wages, and after accepting them, too often rendered poor service. The crops of both cotton and grain failed, more or less, in both those years throughout the south. In some cases there was failure to fulfil contracts on the part of the employer, from disability or other causes, while the “shares of the crop,” which had been accepted by the freedmen as wholly or in part in lieu of wages, too often resulted in “nothing but loss,” leaving the freedmen destitute and the planter in a condition not much better.

It was not until 1868, the third season of the free-labor experiment, that it became generally successful in its operation and results. Then improvement appeared, and the harvest, abundantly supplying the people with cheap food, leaves a surplus stored up for the future. The profit arising from the sale of the exportable productions of the same season will amount to \$250,000,000; and a reasonable forecast of the future sees a promise of equal gain in some of the succeeding years, the increase of quantity compensating for any reduction of price.

The annual gain, be it \$50,000,000 or \$250,000,000, is no longer to be wasted in the purchase of labor, when as good, or better, will be obtained without purchase; yet the capital must be employed and will seek investment. For some years very little will be needed in opening fresh lands, of which there is already too much open for the labor applicable to it. After meeting the demands of agriculture it will seek other profitable uses, as in banking, railroads, manufactures, machine-shops, and the other active employments which capital finds for itself. Prominent among the improvements, that of reconstructing the levees and reclaiming the most fertile of cotton and cane lands should be one of the first,

and, rightly conducted, one of the most profitable for the employment of money.

OPPORTUNITY FOR COTTON SPINNING.

Proximity to cotton fields abundance of water power and of building materials in healthy localities, as well as of fuel, both wood and coal, and cheap labor, not suitable for the field, begging employment, all indicate the advantages and certainty of rapidly extending works for the manufacture of cotton in the cotton-growing States, especially for the spinning and export of coarse yarns.¹

WANT OF LABORERS.

Now that capital is returning into the cotton States, the great want there will be labor, a better use of what they have and more of it, to extend their profitable agricultural business, yet carry forward the other works which will be required. So far, the prevailing conditions in the south have not been attractive to immigrants. Poor crops, dear food, destitution of the common laborer, and these evils too often aggravated by disorder and violence, were reported during the years 1866 and 1867.

The prosperity of 1868 stands in marked contrast to the adversities of the two years preceding. A similar prosperity repeated in succeeding years until it shall be regarded as the rule and not the exception, supported by assurance of peace and safety, will turn the tide of emigration freely from the northern States and from Europe to the cotton-growing States. During the present year the Pacific railroad will be completed and opened, a highway by which the Chinese and other coolies or Asiatic laborers may reach the cotton fields of the United States. They are industrious, frugal, quiet, and numerous.

¹ The publications of the National Association of Cotton Manufacturers and Planters contain some correspondence, from which we select the following statement from South Carolina. (See appendix B for an account of the Augusta factory.)

“Mr. L. D. Child, of Columbia, S. C., presents the following statement of the advantages which that section of the country offers to cotton manufacturers :

“1. *Climate*.—Requiring but little fuel. Fires necessary only two or three months in the year. Good resinous-heart pine wood, cut and corded within one mile of the factory, can be procured at only one dollar per cord. Our total cost for fuel for, say, three months in the year, is less than one-tenth of a cent per pound on manufactures of those months.

“2. *Wages*.—Land is cheap and we are enabled to give each family of operatives a very large garden—large enough to enable them to raise their year's supply of vegetables. Wages are consequently low.

“3. *Operatives*.—The supply is far greater than the demand. They are frugal and industrious. Girls are white. Some few of the men are black.

“4. *Freights*.—We save the freight on bagging and rope and waste, an important item, as we can sell our waste to local paper mills at nearly, if not quite, northern rates. In the summer of 1867, freight on one bale of cotton, worth, say, \$80, from Charleston to New York, was from \$2 to \$2 50. On yarn, worth, say, \$1 20 per bale, only 60 cents, a difference of about 2½ per cent. on the value.

“5. *Cotton*.—We purchase of the producer or his agent. The commissions, brokerage, and other charges paid by northern mills are therefore avoided. Reclamation easy and direct.”

The people of the south, who are to be the immediate beneficiaries of rapidly increasing wealth, will become large consumers of the productions of other States and other countries, and in that capacity will contribute scarcely less than as producers to the general welfare, the extension of trade, and the payment of the national debt.

LARGE PLANTATIONS MUST GIVE PLACE TO SMALL COTTON FARMS.

It seems to be conceded in the south that the large plantation system must generally be abandoned, in the culture of cotton, for smaller holdings of land more thoroughly worked under the direction of the proprietors. This will favor a more general industry, more numerous proprietary interests requiring personal care, better economies, and a constantly improving agriculture, which will preserve the fresh lands in good fertility and restore those which have been over-cropped.

In cotton growing as in market gardening, or any other tillage of the soil, it pays better to keep a small body of land (just enough for a full and fair use of the labor that can be applied to it) under high culture by thorough working and the use of fertilizers, than to half cultivate a larger area with the same or any adequate force.

Since the war, experiments made to ascertain how much cotton can be produced upon a single acre, have exhibited remarkable and gratifying results. When made with "spade culture," stirring the soil deeply and often, after enriching it with guano and phosphates, the product has been very large. In one case, reported upon what seems to be good authority, the product of one acre was *four bales*, or over 1,600 pounds of clean cotton. In past times one bale to the acre has been regarded as a fair crop, and two bales a very large one on the very richest lands, while half a bale, or about 250 pounds, was for many years a satisfactory result in Georgia and the Carolinas, where the lands were badly worn. The story of 1,600 pounds seems almost incredible,¹ yet it is no more in excess of ordinary products than were some remarkable root crops—rutabagas and mangel wurtzels—that have been obtained by the same process of spade culture. Improvement by better farming, to get more cotton from less land, is practicable, and should be sought as the method of true economy, saving in labor, in manure, and all other outlay, yet increasing the income.

RESTORATION OF WORN SOILS—MINERAL AND ORGANIC MANURES.

The value of the calcareous and phosphatic marls, found in various parts of the country, for fertilizing and renovating impoverished soils, has long been known. They were freely used in the older portion of the cotton-growing States with beneficial effects. During the few years

¹ "Mr. D— has eyes to observe, and reports exactly what he sees. He tells me that he knows several instances where double the usual crops have been made on small patches, and one case where a man raised four bales of cotton on one acre of ground, the whole acre cultivated by hand, no mule needed, nor ass either."—*Extract from letter.*

prior to 1861 some importations were made at the south of various commercial fertilizers, guanos, ground bones, and certain nitrates, phosphates, and superphosphates, some very good and some having very little value. The importation and use of these artificial manures had been greatly extended just before the war. The really valuable among them, such as the true guanos and superphosphates, had a marked effect in the increase and better quality of the cotton produced, and this was as apparent on the light and much worn lands of the Carolinas and Georgia as upon the heavier and fresher lands further west.

THE SOUTH CAROLINA PHOSPHATES.

Since the war, a discovery of exceeding value to the agriculture of the whole country, and especially to the cotton culture, has been made in the "native bone phosphate," vast beds of which have been found lying all along the coast of South Carolina and on the Sea Islands; but cropping out and most easily accessible along the banks of the Ashley and Cooper rivers. Richer in these phosphates than any other natural deposits yet discovered, these beds lie just beneath the supersoil, at the very doorway into the cotton-growing country. A description of them and of the circumstances leading to their discovery will be found in the Appendix C, in a letter from Dr. N. A. Pratt, whose researches, aided by others, have opened up a treasure whose value cannot now be measured.

This store of phosphates, thus prepared in nature's laboratory and laid up until the day of special need, contains just the chemical properties wanted for the cotton plant, and which the cotton seed had been abstracting from the soil. So long as cotton seed was returned to the soil upon which it was grown the deterioration of the land was slow, for the fibre of cotton took but little from it.¹ But cotton seed had acquired a commercial value for the oil to be expressed from it, and for the rich food for cattle and sheep, which was found in the "cake" from which the oil

¹ S. L. Goodale, esq., secretary of the board of agriculture in Maine, a writer upon agricultural chemistry, writes thus: "I can conceive of no reason why cotton culture should not be less exhaustive than that of any other agricultural crop with which I am acquainted. Look at it; the product desired is merely cellulose or woody fibre. In this form it possesses a market value of, we will say, \$100 per acre, but to return to the soil it is of no more manurial value than so much saw-dust or wood in any other form, consequently it may be exported with impunity. Besides this there is a side product of seed which draws heavily upon the soil; but this may be utilized and all of value to the soil be returned to it. The seed may be decorticated, and the oil expressed and sold with no loss of ash constituents from the soil. The cake remaining possesses both feeding and manurial value in a high degree. Ground to meal and fed in connection with corn-fodder and annual grasses, (if no more permanent grasses can be grown with improved management,) it can be converted into meat and manure, and thus fertility be fully maintained or even increased.

"Phosphatic and alkaline constituents exist in decorticated cotton seed in large proportion. Its ash is abundant, being not less than $7\frac{1}{2}$ or 8 parts in 100, and of this ash 39 per cent. is phosphoric acid, chiefly in combination with potassa, a little with magnesia, and a very little with lime. Thus a ton of cotton seed cake—that is, of seed with the hulls taken off and the oil pressed out contains about 60 pounds of phosphoric acid, which in a soluble form, as

had been expressed. It could no longer be carted back upon the land as a manure. The land, already worn by many years of improvident cropping, having this further loss, rapidly failed. Some portion of the needed restoring and fertilizing remedies could have been found in the artificial superphosphates and guanos of commerce, but these had become almost inaccessible. Often badly adulterated, and year by year advancing in price as the demand outran the supply of the good articles, while many of the planting people had become unable to buy them, except in very insufficient quantities, there was a great and urgent need of something to replace the cotton seed, and restore to the soil those chief ingredients, indispensable to the production of a good cotton crop—phosphoric acid, or soluble phosphates. In this emergency came the discovery of those natural deposits.

Already too much space has been given to the effort to report faithfully the condition of the cotton culture of the United States, at the close of the year 1868; especially to exhibit the wonderful change from its condition one year previous, and from all the circumstances to draw a fair statement of the promise of the future for this great interest.

OTHER IMPROVEMENTS—SELECTION OF SEED, ETC.

It might be useful, did space permit, to notice in detail other movements in progress for the improvement of cotton culture, prominent among which would stand the valuable experiments in "improvement by selection of seed" from year to year, always guided by rules which define the object sought—in cotton, spinning qualities, such as length, strength, fineness, and the cohering together of the fibres; rapid growth and early maturity of the plant, and a habit of yielding well. Intelligent men are engaged in these efforts in various parts of the south, and of their results attained there are good reports from Georgia, Mississippi, and Arkansas. One new kind of cotton, the "Peeler," originating in Mississippi, is already in market, and bears a price 25 or 30 per cent. higher than other green seed cotton of the same grade, because of its superior staple.

phosphate of potash, and with its combined alkali, cannot be deemed worth less than 10 cents per pound—I think it should be rated higher, but, say..... \$6 00

"The same cake contains $6\frac{1}{2}$ per cent. of nitrogen, say 130 pounds to the ton, and this, rating it at what is paid for it in Peruvian guano, say 17 cents per pound, amounts to..... 22 10

"So we have as the manurial value of one ton of decorticated cotton seed cake, at least..... 28 10

"It is well to bear in mind that the larger part of this (when the cake is fed to stock) would pass away in the liquid excreta, and unless the urine was absorbed or somehow saved, nothing like this value would be realized. In the light of these facts it is easy to see how wide a difference may be occasioned by the loss of the seed on the one hand and its use on the other."

CHAPTER II.

SKETCH OF THE HISTORY OF THE CULTURE OF COTTON IN THE UNITED STATES AND OTHER COUNTRIES.

INTRODUCTORY—UNITED STATES—FIRST COTTON PLANTING—PROMINENT INCIDENTS IN COLONIAL TIMES—INVENTION OF COTTON SPINNING MACHINERY—FIRST EXPORTS—WHITNEY'S COTTON GIN—COMPARATIVE PROGRESS OF COTTON CONSUMPTION—SEA ISLAND COTTON—STATISTICS OF COTTON PRODUCTION—BRITISH INDIA—EGYPT—BRAZIL—WEST INDIES AND GUIANA—TURKEY—OTHER COUNTRIES.

Cotton, the great commercial staple of modern times, was a native plant in Asia and America, and probably in Africa.

Herodotus (450 B. C.) describes the clothing of the people of India as made of cotton, "the fruit of trees grown like wool but finer than the wool of sheep," the earliest mention of cotton that can be found except perhaps in the ancient Hindoo writings.

Cotton cloth, as worn in India and Persia, was mentioned by Strabo (A. D. 45) and fifty years later. Pliny wrote of the use of cotton in upper Egypt towards Arabia and near the Persian gulf.¹

In the first or second century of the Christian era cotton and its fabrics were first mentioned as articles of trade, when Arab traders brought India cottons to the Red sea.

The culture and manufacture of cotton were introduced into Europe as early as the tenth century through Spain by the Moors, who used it very extensively and made fine cloths from it.

It is said that the plant was brought into Italy and cultivated in the fourteenth century when cotton was used to some extent in the place of silk and flax, and about the sixteenth century raw cotton was taken to the Low countries, Great Britain and other parts of Europe, as a material for textile manufactures.

Its early use in Europe was chiefly in the manufacture of *fustians* and *dimities* or mixed with flax, a cotton weft with a linen warp, and in all forms the consumption of cotton was of small amount until the eighteenth century.

It was not until machinery was invented for the manufacture of cotton that its fabrics could be produced possessing goodness of quality and cheapness combined sufficient to displace the fabrics of linen and of wool.

Upon the discovery of America, cotton was found among the native productions of the West India islands, Mexico and Central and South

¹ Quoted from Baine's History of Cotton Manufacture.

America, where the arts of spinning and weaving it were known to the aborigines, who made "beautiful cloths," some of which was dyed with colors "extremely fine." But in the territory, afterwards that part of our republic known as the "cotton-growing States," whence, previous to 1861, the commercial world derived nearly all of its grand supply of raw cotton, the cotton plant was unknown until A. D. 1621.

UNITED STATES.

FIRST COTTON-PLANTING IN THE UNITED STATES.

Bancroft, writing of Wyatt's administration in Virginia, says: "The first culture of cotton in the United States deserved commemoration. This year (1621) the seeds were planted as an experiment, and their 'plentiful coming up' was, at that early day, a subject of interest in America and England."

"A Declaration of the State of Virginia," a tract published in London, 1620,¹ quaintly says: "Wee rest in great assurance that this countrey, [Virginia,] as it is seated neere the midst of the world,² between the extremitities of heate and cold; so it also participateth of the benefits of bothe, and is capable (being assisted with skill and industry) of the richest commodities of most parts of the earth." The same tract mentions *cotton wool* and sugar-canes in its enumeration of the "naturall commodities dispersed vp and downe the diuers parts of the world, * * * all of which may there [in Virginia] also be had in abundance with an infinity of othermore."

The cotton thus early introduced, by seed probably from the Levant or the West Indies, no doubt improved in the more favorable climate and fertile soil of this country, as all varieties of the *annual* cotton plant have improved upon their original quality, when cultivated here, wherever may have been their origin. Yet its cultivation was for a long time limited to gardens or small patches for domestic use. It was distributed northwardly, for we find traces of its culture afterwards in Maryland, Delaware, Pennsylvania, and even in New Jersey, down to the period of the revolutionary war, when it is recorded, the home-grown cotton near Pennsylvania was sufficient for their domestic wants. Then, however, the people were clad chiefly with linen and woollen fabrics, and very little cotton was required. A list of articles "growing or to be had in the [Virginia] collony" in 1621 and giving the valuation of each, includes *cotton wool*, 8*d.* per pound, and flax at about 3*d.* or 26 shillings per cwt.

Although the experiment of cotton-planting in Virginia was successful, it was not followed by an increased culture beyond domestic wants. Explanation is found in the greater profit of tobacco-growing in that colony where labor was scarce and dear, so that the cost of hand-clean-

¹ Force's Collection, vol. 3, p. 4.

² Virginia seems to have a prior title to the position claimed for Boston by *The Autocrat*.

ing, or separation of the seed by hand, before a gin had been invented, exceeded the commercial value of the cotton so cleaned.

PROMINENT INCIDENTS IN COLONIAL TIMES.

To encourage ship-building and textile manufactures at the same time, the general court of Connecticut, in 1640, ordered "that a trade in cotton wool be set upon and attempted." A vessel was built and sent upon her voyage; and later, the several towns were required to take each its share of the *cotton wool* so imported, the share of Hartford being £200 worth.

In 1641, the general court of Massachusetts, in apprehension of a scarcity of clothing for the ensuing winter, offered premiums for linen, and, as a present means of supply, "till *cotton* may be had," directed the use of wild hemp.

In 1708-15, the importation of cotton was continued in small quantities by the northern colonies, chiefly from Barbadoes, but some also from Smyrna and other places where trade extended.

The cultivation of cotton was early introduced also into the Carolinas and Georgia, and into the French colony of Louisiana; yet a half century elapsed before its culture was so extended as to find mention as an article of importance in the chronicles of the day, and then after many importations of seed from various countries and renewed attempts to extend the cultivation.

Cotton seed was brought into Carolina by Mr. Peter Purry, who settled a colony of Swiss near Purrysburg in 1733, and who, in his description of Carolina in 1731, says: "Flax and cotton thrive admirably," from which it is evident that some kind of cotton had preceded his own planting.

About the same date (1734) it was planted in Georgia from seed sent to the trustees by Philip Miller, of Chelsea, England. In the collection of the Georgia Historical Society we find mention of cotton several times in the early papers concerning that colony. In "A new and accurate account of the provinces of South Carolina and Georgia," a tract ascribed to General Oglethorpe, London, 1733, and in "A Voyage to Georgia, began in the year 1735," by Francis Moore, London, 1744, cotton was mentioned as having been introduced; and in 1741¹ a sample of Georgia cotton was taken to England. The deposition of Samuel Auspourguer, a Swiss who had been living in Georgia, was taken for the use of the trustees of the Georgia grant, in London, 1739, in the controversy about the introduction of slaves, which had been disapproved by Oglethorpe and some others of the company, and opposed by the *Highlanders* (Scotch) and *Saltzburgers*, who had been settled in Georgia. This deponent said,² "that the climate of Georgia is very healthy; * * * that the climate and soil is very fit for raising silk, wine and *cotton*; * * and

¹ Collection of Georgia Historical Society, I, 164.

² Collection of Georgia Historical Society, I, 191.

that the cotton, by this deponent's own experience, who has planted the same there, grows very well in Georgia. A specimen of this cotton this deponent brought over with him and produced before the trustees. All which produces, this deponent saith, can be raised by white persons without the use of negroes."

In Louisiana, in the year 1742, M. Dubreuil, a French planter of skill and enterprise, invented a machine for separating the seed from the fibre. It is to be inferred that the culture of this plant had become somewhat extensive to call thus early for such a machine. It greatly stimulated the cotton culture in that colony, imperfect as it was; probably only an adjustment of rollers, like another contrivance by Crebs, of Florida, in 1772, which was the best machine for cleaning cotton until the invention of the saw-gin by Whitney.

Previous to these primitive instruments cotton fibre was detached from the seed by the tedious process of picking with the fingers, the evening task of many members of the household in the early days of cotton growing. The bow-string, in its use, intermediate between the fingers and the primitive gins, and used for beating up as well as cleaning the cotton, was borrowed from India, where it was used in ancient times; and having been first introduced into Georgia, gave occasion for the term "bowed Georgia," as still applied to cotton in Liverpool, with British persistency, although not a pound of *bowed* Georgia cotton has been in that market for fifty years.

The practiced skill of the people of India had wrought works of marvellous fineness and delicacy for many ages, spinning their Banga cotton more finely by hand than any machinery has ever equalled, until very recently, and then from the finest Sea Island fibre. But the use of cotton in Europe and America was recent, it had increased but slowly, and the product was neither fine nor cheap enough to compete with linen and woollen goods for common wear.

The annual value of the cotton manufactures of Great Britain, in 1767, was estimated at £600,000,¹ and then the goods were a compound of linen *warp* and cotton *west*.

INVENTION OF COTTON SPINNING MACHINERY.

In 1767 Hargreaves invented his "spinning jenny." In 1769 Arkwright obtained his first patent for a "spinning frame," though his second patent for the complete machine was not taken out until 1775. About 1770 James Watt obtained his patent for the steam-engine, which was applied to machinery in cotton mills in 1785. Thereafter the cotton manufactures of Great Britain went forward with rapid increase and general prosperity. Just when these discoveries in Great Britain called for larger supplies of raw cotton, the inventive genius of Whitney gave to the cotton culture in America the *saw-gin*, which was to be a benefit and

¹Baine's History of Manufactures, p. 218. Other authority had stated the amount at £200,000 only.

source of power corresponding here to the great discoveries in mechanism which had just preceded it in England. Cheap cotton and cheap cloth were thenceforward to be supplied to all the world.

THE FIRST EXPORTS OF COTTON GROWN IN THE UNITED STATES.

There are some interesting points in the history of American cotton culture in the latter half of the eighteenth century worth noting here, if only as a chronological statement of them, down to the time when the magnitude of the cotton production and trade secured for them regular annual statistics.

During the year 1747, several bags of cotton, valued at £3 11s. 5d. per bag, were exported from Charleston. Some American writers have expressed a doubt if this cotton was of American growth, but English writers¹ mention it as an import of Carolina cotton.

“Some cotton” is mentioned among the exports of Carolina in 1753, and of Charleston in 1757; and a London publication in 1762 says, “What cotton and silk both the Carolinas send us is excellent, and calls aloud for the encouragement of its cultivation in a place well adapted to raise both.”²

In 1753 a liberal citizen of Delaware offered premiums for the promotion of industry, among them one of “£4 for the most and best cotton off an acre.”

In 1770 there were shipped to Liverpool three bales from New York, four from Virginia and Maryland, and three barrels full from North Carolina.

The assembly of the province of Virginia, on the 27th March, 1775, in view of the changing relations with Great Britain, adopted a plan for the encouragement of arts and manufactures, including resolutions of non-importation; and “that all persons having proper land ought to cultivate and raise a quantity of hemp, flax, and *cotton*, not only for the use of his own family, but to spare to others on moderate terms.” The planting of cotton had been recommended in the previous January by the first provisional Congress held in South Carolina.

In 1784, about 14 bales of American cotton were shipped to England, of which eight bales were seized in Liverpool as improperly entered, on the ground that so much cotton could not have been produced in the United States; and this was more than 150 years after the first importation to England of cotton grown in the same country. Thus slow was the progress of this culture. Just at the close of the eighteenth century was the beginning of the export trade which in the next 60 years was to grow to proportions so large in quantity and value, and so important in the trade of the world, as to involve the welfare of nations in its fate.

In 1785 five bags of cotton arrived at Liverpool from America.

¹ Cotton; an account of its culture in the Bombay Presidency, by W. R. Cassels, London, p. 5, and others.

² Quoted in Bishop's History of American Manufactures, in which work many references and citations were found which have been useful in the preparation of this chapter.

During the next five years the imports there of American cotton were, in 1786, 900 pounds; 1787, 16,350 pounds; 1788, 58,500 pounds; 1789, 127,500 pounds; and 1790, 14,000 pounds.

Upland cotton in 1788 was worth 2s. 2d. per pound, and only 10d. in 1790. This may account for the small shipments of American cotton in the latter year. It was probably of poorer staple than the upland of the present day.

EFFECT OF WHITNEY'S INVENTION OF THE SAW-GIN.

In 1794, the year after the completion of Whitney's saw-gin, the exports of the United States rose to 1,600,000 pounds, and to 5,250,000 pounds the next year. In 1805, ten years later, the exports had increased to 40,383,000 pounds.

COMPARATIVE PROGRESS OF BRITISH COTTON CONSUMPTION AND AMERICAN COTTON PRODUCTION.

The following table from Baine's History exhibits the quantities of cotton of all growths imported, exported, and retained for home consumption in Great Britain for each of seven years near the middle of the last century :

Imports and exports of cotton in Great Britain from 1743 to 1749.

Years.	Imported.	Exported.	Retained for home consumption.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1743.....	1, 132, 288	40, 870	1, 091, 418
1744.....	1, 882, 873	182, 765	1, 700, 108
1745.....	1, 469, 523	73, 172	1, 369, 351
1746.....	2, 264, 808	73, 279	2, 191, 529
1747.....	2, 224, 869	29, 438	2, 195, 431
1748.....	4, 832, 966	291, 717	4, 561, 249
1749.....	1, 658, 365	330, 998	1, 327, 367

From this table it appears that the average annual consumption of cotton in Great Britain for the seven years, 1743 to 1749, was 2,062,350 pounds; for the seven years 1794 to 1800, it was 32,543,000 pounds; and for the seven years 1844 to 1850, 555,000,000 pounds; an increase of sixteen fold in each fifty years.

The average annual production of cotton in the United States for the same period was, for the seven years 1743 to 1749, not enough for the home consumption of the colonies; as contributing to foreign commerce it was nothing; for the seven years 1794 to 1800 it was, as estimated, 30,000,000 pounds; and for the seven years 1844 to 1850 it was, 981,500,000 pounds; a thirty-two fold increase in each 50 years.

SEA ISLAND COTTON.

About the year 1786 the sea island or black seed cotton was introduced, it is said, from the Bahamas. During the revolutionary war, or

soon after, Kinsey Borden, of South Carolina, invented, or applied another's invention of a roller-gin, "composed of pieces of gun-barrels fixed in wooden rollers, turned by cranks," requiring two persons to use the machine, one to turn it and the other to feed in the seed cotton. His wife was said to have made the first attempt to grow the Sea Island cotton. But Mr. Seabrook says¹ that W. Elliott, on Hilton Head, was the first to grow a successful crop from five and a half bushels of seed purchased in Charleston, at 14 shillings per bushel. The price of Sea Island cotton was then 10*d.* to 2*s.* or 3*s.* per pound, according to quality. It was much improved afterwards by selection of seed and good culture, and its later value was 90 cents to \$1 25 per pound.

COTTON CROPS IN THE UNITED STATES FROM 1791 TO 1867.

In 1791 the cotton crop in the United States was 2,000,000 pounds, of which three-fourths was grown in South Carolina and one-fourth in Georgia. Exports, 189,500 pounds, worth 26 cents, average.

In 1795 Frederick Almy wrote to his partner, Samuel Slater, the leader of cotton manufacturers in America, that Georgia cotton of good quality was offered him in New York at one shilling sixpence per pound. Cotton was then still imported. The import for the year was 4,107,000 pounds, and the export was 6,276,000 pounds.

In 1801 the cotton crop of the United States was 48,000,000 pounds, of which were contributed by South Carolina, 20,000,000; Georgia, 10,000,000; Virginia, 5,000,000; North Carolina, 4,000,000; Tennessee, 1,000,000 pounds. Export² 20,000,000 pounds.

¹ Bishop's History of American Manufactures.

² Prior to 1802 the tables of exports of cotton at the custom-house did not distinguish home-grown from foreign cotton. There were no full and reliable statistics, either commercial or official, of the cotton production and trade down to about 1825. "Woodbury's Tables and Notes on the Cultivation, Manufacture, and Trade in Cotton," being a report of the Secretary of the Treasury, March 4, 1836, (House Doc. 146, 24th Congress, first session,) purports to array together all statistics then obtainable in regard to cotton. That report contains a great deal that is valuable, but some parts are inaccurate and adopted without due consideration.

For instance, Woodbury's tables thus state the facts for the year 1801. Table A sets down the production of the world in pounds:

	Pounds.
In the United States.....	48,000,000
In Brazil.....	36,000,000
In the West Indies.....	10,000,000
In the rest of Africa, (excluding Egypt).....	45,000,000
In India.....	160,000,000
In the rest of Asia.....	160,000,000
In Mexico and South America, (excluding Brazil).....	56,000,000
Elsewhere.....	15,000,000

These items make a total of..... 530,000,000

He calls it 520,000,000 pounds, of which Great Britain that year imported only 56,000,000 pounds. Table C (Woodbury) says the price of American cotton in 1801 averaged 44 cents

1805. Export, 38,400,000.

1806. Mexican cotton seeds introduced to Mississippi by Walter Burling, of Natchez, and supposed to have improved the character of cotton there grown.

1813. During the war, export, 19,400,000 pounds; price at home, 12 cents; in England, 16*d.* to 26*d.* Of the cotton exported during the war, a considerable portion went in neutral vessels to Bremen and other neutral ports, whence doubtless it found its way to England.

1821. Crop, 180,000,000 pounds; exports, 124,000,000 pounds, price 16 cents here; in Liverpool 9½*d.*

1822. Crop, 210,000,000 pounds. Exports, 144,700,000 pounds; price, 16½ cents here; in Liverpool, 8¼*d.* to 10*d.* First cotton from Egypt received in Liverpool this year. Cotton culture began in Texas.

1825. Crop, 255,000,000 pounds. Exports, 176,500,000 pounds. The prospects of the crop were very unfavorable, following a deficient crop in 1824. The price advanced from 15 cents here and 8*d.* in Liverpool, at close of last season to 25 cents here and 11½*d.* in Liverpool. Consumption was reduced. There was no killing frost in the cotton States that winter, and some cotton plants "rattooned" (sprouted from old roots) the next spring. The late bolls were opening and picking continued all winter. The reduction of use and the unexpected increase of supply reversed the position, prices fell fast and far, involving many merchants in ruin. Cotton costing 25 cents in Charleston was sold in Liverpool after a long holding, so as to return to Charleston only six cents per pound. The price of "fair upland" remained below 7*d.* in Liverpool for the next seven years.

The number of cotton spindles in the United States this year was said to be 800,000, using 100,000 bales cotton per annum.

The following table gives complete statistics of the production and disposition of the cotton crops of the United States from 1826-'27, down to the present time.

per pound; and that the whole United States crop was worth \$8,000,000. It will be observed that 48,000,000 pounds at 44 cents would amount to over \$21,000,000. Table B (Woodbury) distinguishes the growth of the several States in 1801, as quoted in the text, the total being only 40,000,000 pounds, leaving 8,000,000 not located.

The work referred to is often quoted for statistical purposes, and even the errors above indicated have been cited without notice of their inconsistencies. Too large a portion of our cotton statistics, down to a recent period, have been taken by estimation. It is much to be desired that the Statistical Bureau established at Washington shall prepare and publish, periodically, full and reliable statistics concerning all the important branches of business in this country, similar to those issued by the British Board of Trade; and it is equally to be desired for the credit and business interests of the country that the Agricultural Bureau shall issue accurate statistics in place of its *estimates* of the cotton crop, which, from their supposed official character, have obtained credence, while erroneous beyond excuse, to the extent of about 300,000 bales in the statement of *production* of each of the last three crops.

Cotton crops of the United States from 1826-27 to 1866-67, inclusive.

	1826-27.	1827-28.	1828-29.	1829-30.	1830-31.	1831-32.	1832-33.
From Georgia.....	283,930	153,749	249,166	253,117	330,502	276,437	271,925
From South Carolina.....	179,810	109,733	108,275	188,871	185,166	173,872	181,876
From North Carolina and Virginia.....	112,811	77,422	104,621	72,362	70,435	65,961	61,187
From Florida.....	4,163	3,940	4,146	5,787	13,073	22,651	23,641
From Alabama.....	89,707	71,563	79,958	102,684	113,186	125,921	128,366
From Louisiana.....	336,870	304,186	264,249	354,024	426,485	332,635	403,443
Total crop of the United States.....	957,281	720,593	870,415	976,845	1,038,847	987,477	1,070,438
Average net weight per bale.....	331	335	341	339	341	360	350
Total net weight of crop.....	316,860,011	241,398,655	296,811,515	331,150,455	354,246,827	355,491,720	374,653,300
Export to Great Britain.....	646,000	425,000	489,000	596,000	619,000	628,000	630,000
Export to France.....	158,000	148,000	185,000	201,000	137,000	307,200	207,000
Export to other countries.....	50,000	27,000	66,000	42,000	27,000	56,800	30,000
Total export.....	854,000	600,000	740,000	839,000	773,000	892,000	867,000
Taken for home use.....	149,516	190,593	118,833	126,512	182,142	173,800	194,412
Stock in the ports, August 31.....				35,000	119,000	41,600	49,200

COTTON.

Cotton crops of the United States, &c.—Continued.

	1833-'34.	1834-'35.	1835-'36.	1836-'37.	1837-'38.	1838-'39.	1839-'40.
From Georgia.....bales.....	258,665	222,670	270,121	262,971	304,210	205,112	262,693
From South Carolina.....do.....	227,359	203,166	231,237	196,377	294,334	210,171	313,194
From North Carolina and Virginia.....do.....	77,935	67,569	61,254	46,759	55,719	33,336	33,044
From Florida.....do.....	36,738	52,085	79,762	83,703	106,171	75,177	136,257
From Alabama.....do.....	149,978	197,692	236,715	232,243	309,807	251,742	475,725
From Louisiana.....do.....	454,719	511,146	481,636	600,877	731,256	584,994	956,922
Total crop of the United States.....do.....	1,305,394	1,254,328	1,360,725	1,423,930	1,801,497	1,360,532	2,177,835
Average net weight per bale.....pounds.....	363	367	373	379	379	381	383
Total net weight of crop.....do.....	437,558,022	460,338,376	507,550,425	539,290,470	682,767,363	522,444,268	834,110,805
Export to Great Britain.....bales.....	756,000	723,000	771,000	851,000	1,165,000	798,000	1,247,000
Export to France.....do.....	216,500	252,500	266,000	261,000	321,000	242,000	447,000
Export to other countries.....do.....	55,500	48,000	79,000	57,000	89,000	34,000	182,000
Total export.....do.....	1,028,000	1,023,500	1,116,000	1,169,000	1,575,000	1,074,000	1,876,000
Taken for home use.....do.....	196,413	216,888	236,733	222,540	246,063	276,018	295,193
Stock in the ports August 31.....do.....	29,600	41,600	43,300	75,830	40,300	52,250	58,442

Cotton crops of the United States, &c.—Continued.

	1840-41.	1841-42.	1842-43.	1843-44.	1844-45.	1845-46.	1846-47.
From Georgia.....bales...	148,947	232,371	299,491	255,597	285,440	194,911	242,789
From South Carolina.....do.....	227,400	260,164	551,658	304,870	425,361	251,405	350,200
From North Carolina and Virginia.....do.....	28,665	30,750	24,678	24,219	36,087	26,919	20,052
From Florida.....do.....	93,552	114,416	161,088	145,562	189,093	141,184	127,852
From Alabama.....do.....	320,700	318,315	481,714	467,990	517,196	421,966	323,462
From Louisiana.....do.....	815,690	727,658	1,000,246	832,171	929,126	1,037,144	705,979
From Texas.....do.....						27,008	8,317
Total receipts at ports.....do.....	1,634,954	1,683,574	2,378,875	2,030,409	2,394,503	2,100,537	1,778,651
Total crop of the United States.....do.....	1,634,954	1,683,574	2,378,875	2,030,409	2,394,503	2,100,537	1,778,651
Average net weight per bale.....pounds..	394	397	409	412	415	411	431
Total net weight of crop.....do.....	644,171,876	668,378,878	972,959,875	836,528,508	983,718,745	863,380,707	766,598,581
Export to Great Britain.....bales...	839,000	936,040	1,470,000	1,202,500	1,439,000	1,102,040	831,000
Export to France.....do.....	348,700	398,000	346,000	282,700	359,400	359,700	241,400
Export to other countries.....do.....	105,800	131,500	194,040	144,300	285,300	205,000	168,800
Total export.....do.....	1,313,500	1,465,550	2,010,000	1,629,500	2,083,700	1,666,700	1,241,200
Taken for home use north.....do.....	297,288	267,850	385,129	346,750	389,000	422,600	428,000
Stock in the ports August 31.....do.....	72,479	31,807	94,486	159,772	98,420	107,122	214,837

Cotton crops of the United States, &c.—Continued.

COTTON.

	1847-48.	1848-49.	1849-50.	1850-51.	1851-52.	1852-53.
From Georgia.....bales.....	254,875	391,372	343,635	322,376	325,714	349,400
From South Carolina.....do.....	261,752	458,117	384,265	387,075	476,614	463,203
From North Carolina and Virginia.....do.....	10,420	27,591	23,361	32,868	37,122	58,379
From Florida.....do.....	153,776	200,186	181,344	181,204	188,499	179,476
From Alabama.....do.....	436,336	518,706	350,932	451,748	549,449	545,029
From Louisiana.....do.....	1,190,733	1,093,797	781,686	933,639	1,373,404	1,580,875
From Texas.....do.....	39,742	38,827	31,263	45,820	64,052	85,790
All other receipts at ports.....do.....				527	175	640
Total receipts at ports.....do.....	2,347,634	2,728,596	2,096,706	2,355,257	3,015,029	3,262,682
Used south, not received at ports.....do.....	92,152	138,342	137,012	99,185	111,281	153,332
Total crop of the United States.....do.....	2,439,786	2,866,938	2,233,718	2,454,442	3,126,310	3,416,214
Average net weight per bale.....pounds.....	417	436	429	416	428	428
Total net weight of crop.....do.....	1,017,390,762	1,249,984,968	958,265,022	1,021,047,872	1,338,060,650	1,462,130,592
Export to Great Britain.....bales.....	1,324,000	1,538,000	1,107,000	1,418,265	1,668,749	1,736,860
Export to France.....do.....	279,000	368,000	289,500	301,358	421,375	426,758
Export to other countries.....do.....	255,000	322,000	193,700	269,087	353,522	364,812
Total export.....do.....	1,858,000	2,228,000	1,590,200	1,988,710	2,443,646	2,528,400
Taken for home use north.....do.....	523,692	504,143	476,466	366,429	588,382	650,393
Taken for home use south.....do.....	92,152	138,342	137,012	99,185	111,281	153,332
Stock in the ports, August 31.....do.....	171,468	154,733	167,930	128,304	91,176	135,643

Cotton crops of the United States, &c.—Continued.

	1853-54.	1854-55.	1855-56.	1856-57.	1857-58.	1858-59.
From Georgia.....	316, 005	378, 694	389, 445	322, 111	282, 973	475, 788
From South Carolina.....	416, 754	499, 272	495, 976	397, 331	406, 251	480, 653
From North Carolina and Virginia.....	42, 450	63, 739	58, 685	53, 652	54, 965	108, 639
From Florida.....	155, 444	136, 597	144, 404	136, 344	122, 351	173, 484
From Alabama.....	538, 684	454, 595	659, 738	503, 177	532, 364	704, 406
From Louisiana.....	1, 346, 925	1, 232, 644	1, 661, 433	1, 435, 000	1, 576, 409	1, 698, 274
From Texas.....	110, 325	80, 737	116, 078	80, 882	145, 286	192, 002
All other receipts at ports.....	3, 440	1, 061	2, 086	2, 022	3, 363	47, 175
Total receipts at ports.....	2, 930, 027	2, 847, 339	3, 327, 845	2, 939, 519	3, 113, 962	3, 851, 481
Used south, not received at ports.....	144, 952	135, 295	137, 712	154, 218	143, 377	167, 433
Total crop of the United States.....	3, 074, 979	2, 982, 634	3, 665, 557	3, 093, 737	3, 257, 339	4, 018, 914
Average net weight per bale.....	430	434	430	444	442	447
Total net weight of crop.....	1, 322, 240, 970	1, 294, 463, 156	1, 539, 553, 940	1, 373, 619, 228	1, 439, 743, 838	1, 796, 454, 558
Export to Great Britain.....	1, 603, 750	1, 549, 716	1, 921, 386	1, 428, 870	1, 809, 966	2, 019, 232
Export to France.....	374, 058	409, 931	480, 637	413, 357	384, 002	450, 696
Export to other countries.....	341, 340	284, 562	552, 583	410, 430	386, 487	551, 455
Total export.....	2, 319, 148	2, 244, 209	2, 954, 606	2, 252, 657	2, 590, 455	3, 021, 403
Taken for home use north.....	592, 284	571, 112	633, 037	665, 718	452, 185	765, 218
Taken for home use south.....	144, 952	135, 295	137, 712	154, 218	143, 377	167, 433
Stock in the ports, August 31.....	135, 603	143, 336	64, 171	49, 258	102, 926	149, 237

Cotton crops of the United States, &c.—Continued.

COTTON.

	1859-60.	1860-61.	1861-62.*	1865-66.	1866-67.	1867-68.
From Georgia.....bales.....	531, 219	477, 884	.....	263, 373	255, 965	495, 005
From South Carolina.....do.....	510, 109	336, 339	.....	112, 273	162, 247	240, 225
From North Carolina and Virginia.....do.....	98, 181	134, 427	.....	102, 090	62, 149	226, 074
From Florida.....do.....	192, 724	121, 172	.....	149, 139	58, 349	34, 639
From Alabama.....do.....	843, 012	546, 794	.....	429, 102	239, 516	366, 193
From Louisiana.....do.....	2, 139, 425	1, 751, 599	.....	711, 629	702, 131	579, 231
From Texas.....do.....	252, 494	144, 747	.....	174, 985	185, 919	114, 466
All other receipts at ports.....do.....	108, 676	143, 424	.....	211, 885	365, 712	374, 860
Total receipts at ports.....do.....	4, 675, 770	3, 056, 086	.....	2, 154, 476	2, 031, 988	2, 430, 893
Used south, not received at ports.....do.....	185, 522	193, 383	.....	187, 640	286, 672	168, 348
Total crop of the United States.....do.....	4, 861, 292	3, 849, 469	.....	2, 342, 116	2, 318, 660	2, 599, 241
Average net weight per bale.....pounds.....	461	477	.....	441	444	445
Total net weight of crop.....do.....	2, 241, 055, 612	1, 836, 196, 713	.....	1, 032, 873, 156	1, 029, 485, 040	1, 266, 063, 245
Export to Great Britain.....bales.....	2, 669, 432	2, 175, 225	.....	1, 262, 271	1, 216, 262	1, 228, 596
Export to France.....do.....	589, 587	578, 063	.....	220, 650	198, 147	197, 515
Export to other countries.....do.....	515, 154	374, 380	.....	71, 743	142, 645	223, 705
Total export.....do.....	3, 774, 173	3, 127, 668	.....	1, 554, 664	1, 557, 054	1, 655, 816
Taken for home use north.....do.....	792, 521	650, 357	.....	544, 065	653, 367	799, 817
Taken for home use south.....do.....	185, 522	193, 383	.....	187, 640	286, 672	168, 348
Stock in the ports, August 31.....do.....	227, 708	83, 187	.....	283, 692	80, 206	37, 398

* Four years of war, void.

DEFECTIVE STATISTICS.

The annual statements of the cotton crops of the United States, prepared and published by the New York Shipping List, have for many years been recognized as supplying the standard statistics of cotton in this country, by the trade at home and abroad. So long as the entire crop (with immaterial exception, after supplying southern consumption) was shipped from ports in the cotton-producing States by sea, either coastwise or foreign, the method followed by the Shipping List was right and attained to very nearly accurate results.

Before the war, some lines of railway had been completed connecting the cotton States with the north, and the western States with the east, upon which low rates of freight invited the transportation of cotton northward and eastward, especially for the cotton mills of New York and New England. This was interrupted by the war, but in 1864-'65 it was resumed, and the *inland* transportation of cotton will this year probably exceed 600,000 bales. The old method of making up the annual statements is therefore liable to serious errors, and a change has become necessary. The preceding table follows very nearly the figures of the Shipping List in the amount of the annual crops and their distribution, to avoid conflict and preserve conformity with data hitherto recognized as correct, (and properly so down to the year 1865-'66.)

It should be noted that there was no separate account of the cotton used in the south ("south of the Potomac and west of Virginia," as phrased in the Shipping List) until the season of 1847-'48. In the crop statements, annual quantities as large as 185,000 and 193,000 bales had been allotted for use in the south out of the cotton crop supposed to be baled and prepared for market. The entire *spinning* capacity of the machinery in the south before the war was never equal to the consumption of 90,000 bales. Yet the statement may have been nearly correct. There was a large use of cotton, both north and south, for other purposes than spinning; as for mattresses, and various kinds of upholstery. Many thousand cotton mattresses for beds were annually made in the south, for use there, and for shipment north. Indeed, during the war, when the scarcity of cotton became serious and its price advanced to \$1 50 or more per pound, the contents of mattresses broken up in the northern States added materially to the supply of cotton for spinning. But since the war, the value of cotton has been too high to permit its use for such purposes; hence the error of assigning to the south, as consumed there, twice as much cotton as all her spinning power can use.

The weights per bale given in the table are net weights, to correspond with the British and other foreign statistics, where the weight is given less the tare. The cotton year in the United States ends September 30.

BRITISH INDIA.

CULTURE AND IMPORTS OF COTTON.

India contributes a supply of cotton next in importance to that from the United States. The earliest recorded importation of raw cotton from India to England (if not to Europe) was in 1783, when the quantity from India was only 114,133 pounds, in a total import from all countries of 9,735,663 pounds. India had supplied Great Britain with cotton yarn and cloth long before she furnished a pound of the raw material.¹

Such was the devotion to and care of the woollen manufacture in Great Britain, that great efforts were made, and with much success for a long time, to prevent or restrain the importation of calicoes and other Indian cotton goods, by excessive duties and vexatious restrictions; and this opposition to the trade from India continued for more than a century after the organization of the British East India Company. As late as the year 1700 an act of Parliament was passed interdicting the further importation of Indian goods, and in 1721, because of their continued introduction by smugglers, another act was passed imposing a penalty of £5 upon any person wearing such goods.¹

For many years the import of cotton from India to Great Britain was very small, as will appear by the following table:

Imports of cotton from India to Great Britain.

Years.	Import of all growths.	Import from India.	Years.	Import of all growths.	Import from India.
	<i>Pounds.</i>	<i>Pounds.</i>		<i>Pounds.</i>	<i>Pounds.</i>
1783.....	9,735,663	114,133	1789.....	32,576,023	4,973
1784.....	11,482,083	11,440	1790.....	31,447,605	422,207
1785*.....	18,400,384	99,455	1791.....	28,706,675	3,351
1786.....	19,475,020	.....	1800.....	56,010,732	6,629,822
1787.....	23,250,268	.....	1801.....	56,004,305	4,098,256
1788.....	20,467,436	.....		

* Arkwright's patent expired and Watt's steam-engine was applied in 1785.

The following table shows the comparative imports of American and Indian cottons, and the relative prices of Upland and Surats for the five years 1812 to 1816, (quoted from Cassell:)

Imports of American and Indian cottons.

Years.	Total imports into Great Britain.	Imports from the United States.	Imports from the East Indies.	Exports of all growths.	Prices.	
					Upland.	Surats.
1812.....	63,025,936	26,000,000	915,950	1,740,912	13 <i>d.</i> to 23½ <i>d.</i>	12 <i>d.</i> to 16 <i>d.</i>
1813.....	50,966,000	(*)	497,350	No record.	21 <i>d.</i> to 30 <i>d.</i>	15½ <i>d.</i> to 20 <i>d.</i>
1814.....	60,060,239	(*)	4,725,000	6,282,437	23 <i>d.</i> to 37 <i>d.</i>	18 <i>d.</i> to 25 <i>d.</i>
1815.....	99,306,343	45,666,000	8,505,000	6,780,392	18 <i>d.</i> to 25½ <i>d.</i>	14½ <i>d.</i> to 21 <i>d.</i>
1816.....	93,920,055	57,750,000	10,850,000	7,105,034	15 <i>d.</i> to 21 <i>d.</i>	14 <i>d.</i> to 18½ <i>d.</i>

* War between the United States and Great Britain.

¹Cassell's Cotton Culture in the Bombay Presidency, p. 2.

In another place¹ will be found a full and comprehensive table of the statistics of British cotton trade and manufacture from 1816 to 1868, inclusive.

EXPORTS AND CONSUMPTION.

The exports of cotton from India to Europe must not be taken as the measure of the *production* there, in any degree corresponding to the proportion which our exports to Europe bear to our production. The extent of the entire production of India has been much discussed by officials, economists, and others, who differ more or less widely in their conclusions. The usual bases of calculation have been the assumed area of land cultivated for cotton; and the population (180,000,000) requiring to be clothed almost entirely with cotton, at so many pounds of cotton per capita in addition to the known exports.

The consumption of cotton in India for clothing and other domestic uses was estimated by Major General Briggs at 750,000,000 pounds, equal to 2,000,000 bales, (of 375 pounds each,) and by Dr. Wight at 3,000,000,000 pounds, equal to 8,000,000 bales. These may be regarded as the extremes, while Dr. Forbes Watson estimated the whole production at 2,432,395,875 pounds, equal to 6,500,000 bales of 375 pounds each, which he divided thus:

For home consumption in India. 2,160,000,000 pounds, 5,760,000 bales.
For exportation. 272,395,875 pounds, 740,000 bales.

After much discussion Dr. Watson's estimate has been accepted with general favor, although Mann, the very careful writer upon cotton statistics, says: "I am disposed to think, however, that Dr. Watson's estimate is rather over than under the mark."²

Assuming that Dr. Watson's estimate of the cotton production of India in 1858 was correct, when stating it at 2,432,395,875 pounds, and comparing it with the total production of the United States in the same year, 1,796,454,558 pounds, it appears that India produced (in pounds) 35 per cent. more cotton than the United States.

The exports of cotton from all India and from each presidency, in annual averages of quinquennial periods for 24 years down to 1858, are stated in the following table, taken from Mann's statistics:

Exports of cotton from all India.

Years.	Bombay.	Madras.	Bengal.	Total, all India.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1835-'39.	91, 309, 665	13, 576, 300	31, 380, 575	136, 266, 540
1840-'44	141, 802, 690	18, 992, 400	13, 976, 820	174, 771, 910
1845-'49	133, 886, 826	13, 969, 569	9, 900, 497	157, 756, 892
1850-'54	179, 838, 889	18, 770, 256	22, 663, 188	221, 272, 333
1855-'58	222, 076, 713	15, 962, 242	9, 702, 974	247, 741, 929

¹See Appendix D.

²The Cotton Trade of Great Britain, by James A. Mann, F. S. S., &c., 1860, p. 65.

The distribution of these exports was as follows :

Years.	Great Britain.	China and other parts.	Total.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1835-'39	51, 161, 059	85, 105, 481	136, 266, 540
1840-'44	88, 868, 685	85, 903, 225	174, 771, 910
1845-'49	70, 757, 425	86, 999, 467	157, 756, 892
1850-'54	130, 557, 160	90, 715, 173	221, 272, 333
1855-'58	185, 229, 082	62, 512, 847	247, 741, 929

Bombay supplies a large portion of the exports of cotton from all British India, and fortunately the statistical information from that presidency is quite full. From Bengal and Madras only partial returns have been accessible.

Table of exports of cotton from Bombay, showing their distribution, for the eleven years 1858 to 1868, inclusive.

Years.	Great Britain.	Coves, &c., for orders.	Other ports of Europe.	United States.	China.	Total bales.	Total pounds.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>		
1858.....	324, 675	13, 993	19, 542	.....	103, 731	461, 941	177, 847, 285
1859.....	564, 886	25, 314	27, 634	.....	151, 847	769, 681	297, 866, 547
1860.....	469, 611	5, 525	17, 257½	.....	202, 179	694, 572½	270, 883, 275
1861.....	931, 077	18, 560½	8, 426½	.....	60, 511	1, 018, 575	397, 244, 250
1862.....	923, 140	3, 757½	20, 833	.....	7, 934½	955, 665	372, 709, 350
1863.....	945, 454½	2, 867	48, 788	3, 394	.....	1, 000, 503½	390, 196, 365
1864.....	873, 627	.....	54, 021½	706	.....	928, 354½	362, 058, 255
1865.....	1, 074, 158	.....	36, 362	800	13, 401½	1, 124, 721½	438, 641, 385
1866.....	922, 330	.....	33, 205½	.....	4, 619½	960, 155	367, 739, 365
1867.....	1, 056, 357	.....	71, 374	.....	48, 236	1, 175, 967	449, 219, 394
1868.....	1, 034, 383	4, 216	145, 736	.....	55, 449	1, 239, 784	477, 597, 488

The foregoing table, compiled from accurate commercial sources, is entirely correct, except possibly a small error in the exports of the last sixteen days of 1868, which have been taken from telegraphic advices. The aggregates are substantially right; the weights calculated from the average net weight of the Bombay cotton in England each year.

The eleven years embraced in the table include three quite distinct periods: The three years (1858-'60) before the secession war had begun to influence the cotton trade of the world; the four years of the war, 1861-'64, in two of which the export of cotton to China ceased, all of the exportable cotton of India being required for the western nations; and China, for many hundred years an importing country, not only stopping its importation for the time, but contributing from its own deficient product a portion towards making good the greater deficiency in Europe;

and four years, 1865-'68, since the close of the war, a period marked by extraordinary fluctuations, the price for fair Surats at Liverpool falling from 21*d.*, the average of 1864, to 8 $\frac{3}{4}$ *d.*, the average of 1867, which also was the average of the year 1868, and the price at its close. It will be observed that the exports from Bombay have not fallen off, but have rather increased, notwithstanding the comparatively low range of price in the average of the last two years.

The value of cotton exported from Bombay during the two years 1858 and 1859 was declared below £8,000,000 (eight millions pounds sterling) for both years. The value for the two years 1863 and 1864 was more than £55,000,000, (fifty-five millions sterling,) and at the selling value of the portion which reached Liverpool it was nearly £60,000,000, equal to \$300,000,000 gold.

The scarcity of cotton caused by the war compelled the consumption of all surplus reserves before the power of high prices and the strenuous efforts of governments, companies, and individuals everywhere interested had extended the production in other countries to a supply adequate even to the greatly reduced consumption. The renewal of production in the United States aiding the continued production of other countries has relieved the scarcity, but has not yet sufficed to replace the requisite reserves; nor could it supply such an increased consumption as would ensue upon a return to former low prices, and is demanded by the increase of population and the wants of trade.

The usual export of cotton from Bombay before the war was less than 700,000 bales per annum. This was not more than 12 per cent. of the total production, as the estimates of the latter were stated on a previous page. Under the influence of war prices the export has increased 50 to 60 per cent. At first, in 1861 and 1862, that increase was drawn from the existing reserves by stinting the home consumption. But it is reasonable to suppose that in later years the excess of former exports is the result of increased production stimulated by price and demand, facilitated by great extension of railways, and promoted by the inflow of an immense amount of money. The increase has probably reached its maximum, except as some peculiarly favorable season may enlarge the product of a year. The cost of production has been enhanced, and notwithstanding the advantages of railway transportation, it is not to be expected that India cotton will continue to be exported to Europe after its price shall have fallen to 4 $\frac{1}{2}$ *d.* per pound for *fair Dhollera*, as in former times, if excess of supply shall bring that about.

One large crop in the United States, in India, and other countries, simultaneously, would present a supply exceeding the present consumption of the world by more than 1,000,000 bales. Whenever this shall occur, and it may soon, the ability of each country to continue the contribution of its quota of cheap cotton will be tested.

Much space has been given to the cotton statistics of the Bombay presidency, because its cotton constitutes about two-thirds of the whole

East Indian supply. The exports from Calcutta (the Bengal cotton) were distributed as follows for three years :¹

Years.	Great Britain.	France.	China.	Total bales.	Total pounds.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>		
1865.....	159,487	3,216	87,568	250,271	75,081,300
1866.....	337,030	4,698	69,702	411,430	122,606,140
1867.....	235,510	6,314	191,041	432,865	128,128,040

Without complete and reliable statistics from Madras for recent years, an approximation to the exports from that presidency for the three years 1865-67 is attained by taking the import of Madras cotton to Great Britain and assigning to that a proportion of the whole export similar to that from Bengal. (The export from Madras for one year corresponds very nearly with the imports into Great Britain during the last seven months of that year and five months of the next year.) Thus ascertained, the export from Madras to Great Britain stands :

For 1865..... 175,000 bales, weighing 52,500,000 pounds.
 For 1866..... 275,000 bales, weighing 82,500,000 pounds.
 For 1867..... 276,000 bales, weighing 82,800,000 pounds.

Assuming that the Madras export, other than to Great Britain, (to China, &c.,) bears a proportion much less than that from Calcutta and Bombay, the total export from the Madras presidency, for 1867, was approximately 300,000 bales, equal to 90,000,000 pounds.

The total export of cotton in the year 1867 from the three presidencies, besides clothing their 180,000,000 of people, was thus :

	Bales.	Pounds.
From Bombay.....	1,175,967	449,219,394
From Bengal.....	432,865	128,128,040
From Madras, estimated.....	300,000	90,000,000
From all India.....	1,908,832	667,347,434

COTTON CULTURE IN EGYPT.

It has been stated that cotton was grown in Upper Egypt in the time of Pliny, but the cultivation had been long discontinued, when, about the year 1821, that energetic viceroy, Mehemed Ali, having made some successful experiments in cotton planting, began the cultivation on a large scale in Upper Egypt. The result was very favorable. The product of the first year was 60 bags; the second year, 50,000; the third year, 120,000; and in 1824 140,000 bags were obtained.² The bags varied in weight from 180 to 240 pounds.

¹ See on page 38 a table showing the export of Bengal cotton down to 1858.

² Baine's History of Cotton Manufacture, page 306.

In 1827 or 1828 a quantity of seed of the Sea Island cotton was planted in Egypt, where it flourished, and yields cotton second only to the American Sea Island. About 1833 or 1834 the cultivation of cotton in Egypt fell to an inconsiderable quantity, but was afterwards increased, as appears from the table of the quantities exported from Alexandria during the ten years 1850-'59:

	Pounds.		Pounds.
1850.....	46, 059, 965	1855.....	56, 874, 300
1851.....	30, 347, 338	1856.....	54, 419, 904
1852.....	66, 424, 960	1857.....	49, 489, 552
1853.....	43, 885, 201	1858.....	52, 369, 408
1854.....	43, 546, 500	1859.....	49, 259, 210

Averaging about 49,000,000 pounds, or 95,000 bales per annum.

In Egypt, as elsewhere, the American war gave a new and forcible impetus to the cotton culture. Unfortunately the exact statistics are not at hand. The crops of 1864 and 1865 were very large, say 360,000 and 340,000 bales respectively. In 1866 and 1867 they fell off to 210,000 and 225,000 bales. The crop of 1868-'69 is estimated as equal to that of 1865, say 340,000 bales of 500 pounds each.

It seems to be the fact that cotton culture in Egypt has reached its highest point, even under high prices, in the present condition of that country; and that with lower prices the production will fall away and give place to grain crops.

BRAZIL.

The Maranh Company exported the first cotton from Brazil about 1760. The limited demand for it in Europe appears from this incident: A Portuguese merchant, in 1762, bought at the company's sale 300 bags, (the wild cotton of the province,) at 300 reis per pound. He sent it to Rouen, the only market, but was a loser because of the peace of 1763. At the next sale there was no bidder for any large quantity. The directors took it at 160 reis, and were also losers.¹

England first received cotton from Brazil in 1782, although the Dutch colony of Surinam had sent cotton to Holland as early as 1735; thus early making known the quality of South American cotton. Its time had not then come. Soon after the introduction of Pernambuco cotton to Great Britain, the value of its staple was discovered, and as early as 1825 there was a large import to England of Brazil cotton.

¹ Southey's History of Brazil, quoted in Bishop's American Manufactures.

EXPORTS FROM BRAZIL.

The exports from Brazil from 1840 to 1855 were stated in Mr. Ellison's hand book, as follows :

Pounds.		Pounds.	
1840.....	22, 335, 520	1848.....	20, 457, 116
1841.....	22, 140, 030	1849.....	27, 181, 312
1842.....	20, 466, 566	1850.....	35, 498, 048
1843.....	22, 324, 718	1851.....	28, 270, 080
1844.....	26, 056, 160	1852.....	28, 744, 000
1845.....	26, 446, 240	1853.....	31, 933, 056
1846.....	20, 651, 040	1854.....	28, 551, 584
1847.....	19, 419, 224	1855.....	27, 838, 720

While there is no apparent limit to the capacity of Brazil to produce cotton on account of soil, climate, or other natural condition, economic reasons seem to have fixed an early limit. There was but very little increase in the production during the 16 years above stated. The reason is probably to be found in the greater profit of other crops, especially of coffee. During and since the war the cotton culture of Brazil has been largely extended. The import to Great Britain alone was in—

Year.	Bales.	Weight per bale.	Pounds.
		<i>Pounds.</i>	
1864.....	212, 190	180	38, 194, 200
1865.....	340, 260	160	54, 441, 600
1866.....	407, 650	174	70, 931, 100
1867.....	437, 210	162	70, 828, 020
1868.....	636, 897	155	98, 719, 035

Here was a progressive increase, and the estimate for the crop of 1868-'69 calls for further increase. It remains to be seen if the extension of this culture in Brazil is to be permanent and progressive, irrespective of occasional depressions of price; or if, upon the recurrence of a low range of prices, the effect of over supply, cotton will not again give place to the more profitable coffee.

WEST INDIES AND GUIANA.

At the time of the discovery of these islands by Columbus, the cotton plant was cultivated, and large quantities of its fiber were manufactured by the natives. The early cotton manufacture of England and other parts of Europe was supplied chiefly from the West Indian colonies, and from the Levant. In 1787 Great Britain imported from her West Indian colonies 6,600,000 pounds of cotton, or about 38 per cent. of the entire import to the United Kingdom. Our own early importations of cotton were chiefly from the same source. The quality is generally good, especially that produced in Guiana from the black seed, ranking nearly with the Egyptian.

The successful culture of cotton in the United States, and consequent low prices, had caused a great falling off in the West Indies, where sugar became the preferred crop as more profitable. British emancipation next occurred, and almost caused the abandonment of cotton culture. The diminution is shown in the following table of British imports from the West Indian colonies, embracing nearly the whole product for the several years.¹ They were from—

British imports of cotton from the West India colonies.

Years.	Demarara.	Berbice.	Grenada.	St. Vincent.	Barbadoes.	The Bahamas.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1831	979, 720	554, 083	141, 038	49, 576	333, 405	183, 794
1836	818, 648	262, 049	117, 935	71, 864	121, 752	157, 118
1841	83, 285	3, 154	61, 776	49, 622	99, 032	925, 751
1846	275, 901	113, 638	9, 335	53, 382	380, 248	257, 507
1851	157, 596	.....	24, 715	42, 687	86, 948	8, 532
1856	210, 560	.....	67, 760	35, 616	51, 632	.....
1857	112, 224	.....	42, 336	69, 328	28, 000	1, 113, 392
1858	227, 696	.....	57, 476	57, 120	3, 472	.....

In 1809, Great Britain imported from all countries 440,382 bales, of which there were from the United States, 160,180 bales; from Brazil, 140,927 bales; from the East Indies, 35,764 bales; from the West Indies, &c., 103,511 bales. In 1815, the imports by Great Britain were 100,709,146 pounds; from the United States, 54,407,299 pounds; from the British West Indies and Guiana, 15,341,197 pounds; from all other sources, 30,960,650 pounds.

In 1859, the production of cotton in the British West Indies and British Guiana had so fallen off that the total import to Great Britain from all those possessions was only 6,800 bales, or 592,256 pounds.

Here, as elsewhere, high prices, the effect of our war, induced a rapid restoration of the cotton culture. Nearly all the production of those British possessions is exported to Great Britain; therefore there will be no material error in taking the British imports as the measure of the colonial production for the last three years: 1866, 41,193 bales; 1867, 43,446 bales; 1868, 20,630 bales. The imports from the British West Indies in 1864 and 1865 were respectively 59,645 and 131,120 bales; but the greater part of these was of cotton from the United States which had run the blockade.

In Turkey, &c., prior to the war, its stint of cotton and high prices, the commercial supply of cotton from Turkey and other countries on the Mediterranean (Egypt excepted) was too small to find separate mention in the commercial or any general statistics of the cotton trade.

There, where cotton was first transplanted from the east, its cultiva-

¹ Mann's Cotton Trade of Great Britain, p. 81.

tion had long ceased, except for domestic use and as an insignificant article of local trade.

Following the universal rule, there also the culture of cotton was quickly extended so as to afford a contribution of some magnitude towards the needed supply after 1862. The statistics of that production are not accessible to us. The imports of cotton from Turkey, Greece, &c., to Great Britain, for the last five years, were:

1864.....	62,052 bales.	1867.....	16,615 bales.
1865.....	80,303 bales.	1868.....	12,623 bales.
1866.....	32,632 bales.		

To these should be added the quantities taken for use in France and other portions of the continent of Europe. The rapid decline in the production from 1865 to 1868 will be observed. It indicates a probable cessation of the culture for export whenever the United States and other countries of abundant and cheap production shall again offer to the commercial world a full supply of cotton for its wants.

OTHER COUNTRIES, AND COMPARATIVE VALUE OF AMERICAN AND FOREIGN COTTON.

The leading cotton-producing countries—the United States, the East Indies, Egypt, Brazil, the British West Indies, and Guiana, and the countries bordering upon the Mediterranean—having been passed in a rapid review of their past and present cotton supply, it remains only to notice briefly the culture in other countries, extended or called into existence by the recent famine and its prices.

Samples from all these countries, showing the comparative length and quality of their respective staples, were exhibited at the Universal Exposition in a very interesting and well-prepared collection by the Manchester Cotton Supply Association. Through the courtesy of the officers of that association (acknowledged in the first part of our report) a similar but even more complete collection of samples was prepared for and brought home by the commissioner for cotton who makes this report.

During the war, and under the influence of high prices, experiments were made with both black and green seed wherever cotton planting was attempted, with few exceptions—the former of American Sea Island and Egyptian, and the green seed principally of New Orleans and other superior staples. Australia, the South Pacific islands, South Africa, and the west coast of South America produced fine specimens of long stapled (black seed) cotton, vying in spinning value with the best staples from Egypt, Surinam, Pernambuco, &c. Eastern Europe and western Asia exhibited specimens of green seed cotton grown from New Orleans seed that were much better than the native cotton, and quite equal to the upland cotton of the same grade in the United States, as were a few of the specimens from India obtained from the same seed.

The commissioner is so convinced that cotton culture in most of the

places where these experiments were made will cease with the high prices that induced them, that he deems it unnecessary to make mention of them separately. The samples are all interesting as displaying evidences of what can be done under the power of price or necessity, and useful to the people where they were successful in testing the fitness of soil, climate, and other conditions for cotton growing. But cotton growing will be a leading business permanently only in those countries where it can be made more profitable than other pursuits. Where indigo, rice, tobacco, sugar, coffee, or breadstuffs will pay better, or will better suit the soil, or climate, or the necessities, habits, or other conditions of a people, than cotton, the culture of cotton may be temporarily forced by the power of high price as well as by the decree of a Pacha, or by the well-directed efforts of a resolute, intelligent, and persistent manufacturing people; but it will be only temporary, like any other enforced industry attempted in defiance of the laws of true economy.¹

Those laws find a parallel and illustration in the laws governing the vegetable world. Indian cotton seed brought to the United States (from where it is a native to where it is an exotic) will produce a better cotton here than in India, tending to longer and better staple continually. On the contrary, New Orleans seed planted in India will produce cotton the first year nearly equal to its original, but every year of reproduction from the same seed will exhibit more and more deterioration until the product shall have assimilated to the native Indian cotton. The conditions of the two countries cause the characteristics of cotton to determine in opposite directions; hence the necessity for frequent renewals of good staple seeds in India. It is forcing a temporary deviation from nature's course, but always the tendency is to obey the natural law.

COMPARATIVE VALUES OF AMERICAN AND OTHER KINDS OF COTTON.

The classification or grading of cotton is not applied uniformly to the cotton of all countries, even in Liverpool, where all are found in market. "Fair" cotton from any part of the United States is a very high grade, almost clear of impurities and defects. It is four grades higher than the American "middling," yet the latter is a better grade in point of cleanliness than the grade of "fair" in Surats and some other sorts.

These incongruities make it difficult to convey to any one not familiar with the trade and its technicalities a proper idea of the relative value of the several kinds of cotton by the quotations of a price list. The following arrangement, classing American "middling" with the "fair" cotton of other countries, will bring them all nearly to uniformity of cleanliness and appearance. Differences of price from a common level will then indicate the relative values of all kinds by their merits for

¹See, in the Appendix I, a report from the London Times of the last meeting of the Cotton Supply Association.

spinning. The prices are those of December 30, 1868, at Liverpool, per pound:

Long staple or black seed varieties.		Mobile, middling,	10 $\frac{7}{8}$ d
Sea Island, middling,	23d	Upland, middling,	10 $\frac{7}{8}$ d
Egyptian, fair,	11 $\frac{1}{2}$ d	Smyrna, &c., fair,	9 $\frac{1}{2}$ d
Peruvian, fair,	11 $\frac{1}{2}$ d	Surats, Dharwars, fair,	9 $\frac{3}{8}$ d
Pernambuco, fair,	11 $\frac{1}{4}$ d	Surats, Dhollerahs, fair,	8 $\frac{5}{8}$ d
West Indian, fair,	11d	Madras, fair,	8 $\frac{1}{4}$ d
Green seed varieties.		Bengal, fair,	7 $\frac{1}{4}$ d
New Orleans, middling,	11d		

ANNUAL STATEMENT OF COTTON SUPPLY.

Annual cotton statistics are made up in the United States to the 31st of August, and in Great Britain, and Europe generally, to December 31st. To make up tables for both Europe and the United States in which the statistics of Europe shall conform in date to our crop statements, the account must be taken in Europe about September 30. For the greater part of the European statistics of that date we are indebted to the valuable tables of M. Ott-Trümpler, of Zurich.

SUPPLY AND CONSUMPTION OF COTTON.

Table of the supply and consumption of cotton in all Europe and the United States for the year 1859-'60.

Supply and consumption.	Bales.	Pounds.	Bales.	Pounds.
Stocks of cotton in ports—				
In Europe September 30, 1859			750,000	315,750,000
In the United States August 31, 1859			150,000	67,050,000
			900,000	382,800,000
Cotton crop of the United States for the year ending August 31, 1860	4,861,000	2,192,311,000		
Import to Europe for year ending September 30, 1860—				
From India	700,000	267,400,000		
From Brazil	127,000	22,987,000		
From Egypt and others	167,000	68,470,000		
			5,855,000	2,551,168,000
Total supply, Europe and America, for the year			6,755,000	2,933,968,000
Consumption in the United States				
Consumption of American cotton in Spain, Russia, and Sweden	168,000	75,768,000		
Consumption in Great Britain, all kinds	2,560,000	1,113,600,000		
Consumption in rest of Europe	1,577,000	654,455,000		
			5,283,000	2,284,901,000
Stocks on hand in United States August 31, 1860				
Stocks on hand in Europe September 30, 1860		228,000		
		1,244,000		
			1,472,000	649,067,000

The foregoing table, or statement of 1859-'60, represents the year of largest supply ever known. Compare with it the following statement of the last complete cotton year, 1867-'68:

Supply and consumption of cotton in Europe and the United States for the years 1867-'68.

Supply and consumption.	Bales.	Pounds.	Bales.	Pounds.
Stocks of cotton in ports—				
In Europe September 30, 1867			1, 092, 000	404, 040, 000
In the United States August 31, 1867.....			80, 000	35, 200, 000
			1, 172, 000	439, 240, 000
Cotton crop of the United States for the year ending August 31, 1868	2, 600, 000	1, 157, 000, 000		
Import to Europe for year ending September 30, 1868—				
From India	1, 312, 000	478, 880, 000		
From Brazil	675, 000	106, 650, 000		
From Egypt	233, 000	116, 500, 000		
From others	330, 000	66, 000, 000		
			5, 150, 000	1, 925, 030, 000
Total supply, Europe and America.....			6, 322, 000	2, 364, 270, 000
Consumption in the United States.....	968, 000	430, 760, 000		
Consumption of American cotton in Spain, Russia, and Sweden.....	35, 000	15, 575, 000		
Consumption in Great Britain, all kinds.....	2, 822, 000	1, 001, 810, 000		
Consumption in rest of Europe.....	1, 845, 600	645, 960, 000		
			5, 670, 600	2, 094, 105, 000
Stocks on hand in the United States August 31, 1868	37, 400			
Stocks on hand in Europe September 30, 1868....	614, 000			
			651, 400	270, 165, 000

M. Trümpner's tables exclude the cotton trade of Spain, Russia, and Sweden. The entire cotton crop of the United States being stated on the side of supply, it is necessary to state on the side of consumption the export of United States cotton to those countries.¹

¹ See, in the Appendix G, a table of exports of American cotton to Spain, Russia, and Sweden and Norway, 1849 to 1867.

Table of the supply and consumption of cotton in all Europe and the United States, stated for a comparison of the three years 1858-'59 to 1860-'61 with the two years 1866-'67 and 1867-'68, (the year ending August 31 in the United States, and September 30 in Europe.)

Years.	Stocks at beginning of year—Europe and United States.	Crop of United States.	Imports to Europe of other sorts.	Total supply, Europe and United States.	Stocks at end of season.	Consumption—Europe and United States.	
						Bales.	Pounds.
1858-'59	746,000	4,019,000	841,000	5,606,000	900,000	4,706,000	1,976,520,000
1859-'60	900,000	4,861,000	994,000	6,755,000	1,472,000	5,283,000	2,284,901,000
1860-'61	1,472,000	3,850,000	1,058,000	6,380,000	1,112,500	5,267,500	2,212,350,000
1866-'67	1,426,700	2,319,000	2,601,000	6,346,700	1,172,000	5,174,700	1,893,940,000
1867-'68	1,172,000	2,600,000	2,550,000	6,322,000	651,400	5,670,600	2,094,105,000

While the number of *bales* consumed during the last year exceeds that of 1859-'60 (the largest previous to the year 1867-'68) by 387,600, the number of *pounds* consumed the last year was less than that of 1859-'60 by 190,896,000, equal to 518,000 bales of the average weight of the last year. This exhibits the falling off in the average weight of bales since the proportion of American supply fell from seven-eighths to one-half of the whole supply.

The consumption of cotton in Europe and the United States during the last year, 1867-'68, shows an increase upon the preceding year, 1866-'67, of 495,900 bales, or 200,165,000 pounds.

CHAPTER III.

COTTON MANUFACTURING IN THE UNITED STATES.

PROMINENT EVENTS IN THE HISTORY OF AMERICAN COTTON MANUFACTURE—STATISTICS OF MANUFACTURE—AVERAGES OF SPINDLES—RETURNS FROM COTTON MILLS—COMPARATIVE STATEMENT OF THE MOVEMENTS OF COTTON IN EUROPE AND THE UNITED STATES—CONCLUSION.

HISTORICAL NOTICE.

The time allowed for preparing this report is too short to permit writing a history of the early cotton manufacture in this country; nor can space be given for any proper treatment of a subject so interesting.

We pass over the period from 1620, when cotton was recommended for cultivation in Virginia as a useful material for textile fabrics, down to 1760-'80, when the inventions in England of spinning and other machines by Higs, Lees, Hargreaves, and Arkwright, gave a new value to and demand for cotton.

The spinning and weaving in the colonies during that time was chiefly of wool and flax, and only for home wear, trade in such manufactures being prohibited. Indeed, the history of that period tells of the policy and laws of the mother country toward the colonies, interdicting or repressing such industries as might compete with the manufacturer at home or lessen his market.

For the brief narrative which follows, of the prominent events in the history of the American manufacture of cotton goods, we are mainly indebted to Samuel Batchelder, esq., of Boston, who was a practical manufacturer at New Ipswich, N. H., as early as 1808, and, though far advanced in years, still successfully directs the operations of one of the large corporations at Lawrence, Mass.

In 1863, Mr. Batchelder published a small book¹ containing such particulars of the history of the cotton manufacture in this country as he had collected, guided by the personal recollections of himself and his early cotemporaries, which reached back almost to the time of Slater and the introduction of the first Arkwright machines.

Spinning jennies and frames were put in operation in the United States very soon after they were started in England. Soon after the close of the war of the Revolution, in 1786-'87, the legislature of Massachusetts offered premiums for the introduction and setting up of manufacturing machinery. In 1789, the "Beverly Manufacturing Com-

¹ Introduction and Early Progress of the Cotton Manufacture in the United States. Boston: Little, Brown & Co. 1863.

pany" was incorporated, whose works at Beverly, Mass., had been begun in 1787, and were in operation there at the time of Washington's visit in 1789—the first cotton factory in America.

About the same time, Tench Coxe and others were actively promoting manufacturing operations in Pennsylvania. Machinery for making cotton goods was set up in Connecticut in 1790, in New Jersey in 1792, and in New York in 1794.

But Rhode Island was especially fortunate in securing the services of Samuel Slater, a practical machinist and manufacturer, who arrived from England near the close of the year 1789, and was soon employed by Moses Brown and Almy & Brown to take charge of their mills at Providence and Pawtucket.

The mills which had been started at Beverly, Providence, Paterson, (New Jersey,) and Philadelphia, had the spinning jenny; but it was Slater who first introduced Arkwright's machinery.

Thenceforward there was success, with rapid improvement, especially in Rhode Island and Massachusetts, attributable in a great degree to the skill and teaching of Slater.

Coxe's report upon the census of 1810 gives the number of cotton factories in the country as follows:

Maine.....	3	Pennsylvania.....	64
New Hampshire.....	12	Delaware.....	3
Massachusetts.....	54	Maryland.....	11
Vermont.....	1	Ohio.....	2
Rhode Island.....	28	Kentucky.....	15
Connecticut.....	14	Tennessee.....	4
New York.....	26		—
New Jersey.....	4	Total.....	241

The number of spindles is not fully stated, but those of New Hampshire were less than 500 per mill, and in Rhode Island and Massachusetts less than 800 to each mill. The mills in the middle and western States were doubtless smaller still. Assuming the average of all at 400 per mill, the whole number of spindles would be 96,400.¹ (In Woodbury's report to Congress, in 1836, the number for 1810 was stated at 87,000.)

¹Tench Coxe, in his "Statement of the Arts and Manufactures of the United States of America for the year 1810," (prepared in 1812, under instruction of Albert Gallatin, Secretary of the Treasury,) says "the maximum of our exportation of cotton in any one year was sixty-four millions of pounds weight;" that it was "worth then 12½ cents per pound at the planters' estates—\$8,000,000;" and that if the 64,000,000 pounds of cotton could have been spun into yarn, (it would have required 1,160,000 spindles,) the weight of yarn would have been about 50,000,000 pounds, worth, at the price of the day, \$1 12½ per pound, and its value "would amount to \$50,000,000, exceeding the aggregate value of all the exports of American articles in the most favorable year." He further says, that by weaving this quantity of yarn into cloth it would become worth \$67,000,000, and by the process of printing and dyeing, its value would be further increased, so that "the aggregate value of our sur-

The embarrassments to commerce growing out of the war in Europe, the Berlin and Milan decrees, orders in council, and our own embargo upon trade, had, prior to 1810, restricted the importation of foreign goods; and the consequent advance in prices gave impulse to a rapid increase in the production of such fabrics as could be manufactured here, particularly of cotton, to take the place of the foreign goods.

Mr. Batchelder, who was then making cotton goods, says, "The war with Great Britain in 1812 raised the price of goods to such extravagant rates that articles of cotton, such as had been previously imported from England at 17 to 20 cents per yard, were sold by the package at 75 cents. This state of affairs caused a further large increase of the manufacturing business during the war.

In 1811, Mr. Nathan Appleton¹ and Mr. Francis C. Lowell, of Boston, having met in Edinburgh, determined upon plans for the introduction to this country of the power-loom, then recently put in operation in some of the cotton mills in Great Britain. Those plans were carried into effect by Messrs. Lowell, Appleton, Patrick T. Jackson, and others, and power-loom weaving was successfully established in Waltham, Massachusetts, in 1814.

Improvements to the machinery for spinning and weaving, for carding and dressing, and other processes in cotton manufacture were discovered and applied in rapid succession by the ready invention of Paul Moody and others. These, brought into use by the enterprise and sagacity of Mr. Lowell and his associates at Waltham, gave, in the vicinity of Boston, an impulse which for its day was as valuable and effective as that given by Slater and his associates in the vicinity of Providence at an earlier date. The later one was a great advance upon the first, yet the value of either to the welfare of the whole country cannot well be over-estimated.²

With the return of peace in 1815 the importation of foreign goods was resumed. The sudden fall in prices which followed was destructive of all profit in manufacturing operations, and brought ruin to many who were engaged in them.

plus cotton, (64,000,000 pounds,) even when thus simply manufactured, would be raised from \$8,000,000 or \$9,000,000 to \$75,000,000."

The supplementary observations of Mr. Coxe, bearing date September, 1814, "*in regard to the uses of steam*" as applied to the manufactures of cotton and other materials, to "*the moving of boats and vessels freighted with those raw materials,*" and other labor-saving devices, are peculiarly interesting now.

¹ See Memoir of Hon. Nathan Appleton, prepared for the Massachusetts Historical Society by Hon. R. C. Winthrop, for interesting particulars concerning the establishment of the earlier factories, introduction of the power-loom, &c.

² Mr. Nathan Appleton, in the sketches of his own life, which he had drawn up about the year 1855, and handed to Mr. Winthrop a short time before his death in 1861, thus wrote of the labor-saving machinery in the arrangement adopted by Mr. Lowell for the mill at Waltham prior to 1816. "It is remarkable how few changes, in this respect, have since been made from those established by him in the first mill built in Waltham."

REPORT OF THE CONGRESSIONAL COMMITTEE IN 1815.

A report of a committee of Congress in 1815 gave the following as the statistics of the cotton manufacture in the United States at that date.

Capital employed.....	\$40,000,000
Operatives employed:	
Men.....	10,000
Boys.....	24,000
Women and girls.....	66,000
	100,000
Wages of the 100,000, at \$1 50 per week, average.....	\$15,000,000 ¹
Cotton consumed per year, 90,000 bales..... lbs..	27,000,000
Yards of cloth produced.....	81,000,000
Cost, averaging 30 cents per yard.....	\$24,300,000

A statement of the spindles in three States was made as a basis for assessments to pay the expenses of an agent at Washington. It appears to have been carefully and correctly made up, and was as follows:

	Mills.	Spindles.
Rhode Island.....	99	68, 142
Massachusetts.....	52	39, 468
Connecticut.....	14	11, 700
Total.....	<u>165</u>	<u>119, 310</u>

The foregoing statistics of 27,000,000 pounds of cotton used, producing 81,000,000 yards of cloth, or three yards of yard-wide cloth per pound of cotton, indicate an average of about No. 15 yarn. At the probable rate of that day, there should have been about 350,000 spindles in the United States to consume the 27,000,000 pounds of cotton.

Up to this time (1815) the cotton machinery had been employed only in the production of yarn, which was woven upon hand looms, (the mill at Waltham, having power looms, being a recent exception.) Now came the necessity for adopting whatever would cheapen the process yet improve the product, and power looms soon came into general use.

The great profits of the owners of cotton factories for a few years prior to 1813, and the desire to participate in them, led to the erection of new mills and their machinery, to a great extent, upon credit. Many had not the capital, which would have been required in ordinary times for a proper conduct of the business, and had ventured without it under the temptation of extraordinary prices. While all suffered, these were utterly disabled by the change that came with peace.

All this large interest was prostrate. In the "Autobiographical Sketches" left by Nathan Appleton, he made notes of a visit which he and Mr. Lowell made to Rhode Island in 1816. He says: "We proceeded to Pawtucket. We called on Mr. Wilkinson, the maker of

¹ Should be \$150,000.

machinery. He took us into his establishment—a large one. All was silent—not a wheel in motion—not a man to be seen. He informed us that there was not a spindle running in Pawtucket, except a few in Slater's old mill, making yarns; all was dead and still. * * * We saw several manufacturers; they were all sad and despairing.”

Congress was petitioned for relief in the form of a protective tariff, and the policy of encouraging American industry in this way was earnestly advocated and carried by Calhoun, Clay, and other leading southern men in Congress, against the strenuous resistance of representatives from the New England and other districts largely interested in shipping and foreign commerce.

The recovery from this extreme depression was slow and gradual. Adversity had compelled the adoption of the best labor-saving machinery which ingenious men could devise, and a resort to all the wise economies that should tend to cheapen the cost of production. Under favor of these benefits and the fostering effect of the protective tariff the manufacturing interest regained a profitable position, and began a new period of growth and prosperity. It has since passed through adverse times, making losses and encountering changes of legislative policy that were discouraging; but in spite of these and their checks to progress, it has increased from one decade to another, and has become one of the most important, as it is one of the most firmly established industries of our people.

In 1821 Messrs. Nathan Appleton, Kirk Boott, P. T. Jackson, and Paul Moody started the improvement of the water-power on the Merrimack river, which created the city of Lowell. It was the origin and type of the many great manufacturing towns which have become the seats of wealth-producing power.

Our limited time and space do not permit even a chronological statement in detail of the beginning and progress of the large manufacturing works at Saco, Biddeford, and Lewiston, in Maine; at Great Falls, Salmon Falls, Manchester, and Nashua, in New Hampshire; at Lawrence, Fall River, and the hundred other manufacturing cities and towns in Massachusetts; nor of the extension of this business in the States of Rhode Island and Connecticut, dotting them all over with factories wherever a water-power could be utilized under the influences which began with and flowed from the success of Slater in 1789-'90.

The early, persistent, and successful efforts for the promotion of manufactures in Pennsylvania, New Jersey, and New York, and the results achieved, deserve special mention, but, like the others, must be passed over.

STATISTICS OF MANUFACTURE.

It remains now to present such statistics as are obtainable to show the growth of this business from one decade to another and its present condition.

The following table is made from the data gathered and presented to Congress by Mr. Woodbury in his special report, March 4, 1836. Few, if any, of its quantities could have been taken from actual returns, and all are more or less the subjects of estimate. (The spindles in 1815 must have been over 300,000.) Mr. Woodbury explains that the quantities of cotton stated as consumed included the cotton used in families for home spinning and all other purposes.

Number of spindles and consumption of cotton from 1805 to 1835 inclusive, according to Woodbury.

Year.	Number of spindles.	Pounds of cotton used.	Year.	Number of spindles.	Pounds of cotton used.
1805.....	4,500	11,000,000	1821.....	230,000	50,000,000
1807.....	8,000	.....	1825.....	800,000	.....
1809.....	31,000	.....	1828.....	1,250,000	60,000,000
1810.....	87,000	16,000,000	1830.....	1,500,000	.....
1811.....	80,000	17,000,000	1831.....	.....	77,500,000
1814.....	122,646	.....	1833.....	.....	82,500,000
1815.....	130,000	31,500,000	1835.....	1,750,000	100,000,000
1820.....	220,000	.....		

CENSUS RETURNS.

The following table of statistics was compiled from the census returns of 1840. The number of cotton mills then returned exceeds the number now in existence. Either many have been discontinued, or some were included then that were not properly *cotton* factories.

It will be noticed that there were no cotton mills in the States of Illinois, Missouri, Michigan, Florida, Wisconsin, Iowa, nor in the District of Columbia.

Statistics of the cotton manufacture of the United States according to the census returns of 1840.

States.	Number of mills.	Number of spindles.	Dyeing and printing establishments.	Value of product.	Number of persons employed.	Capital.
Maine.....	6	29,736	3	\$970,397	1,414	\$1,398,000
New Hampshire.....	58	195,173	4	4,142,304	6,991	5,523,200
Massachusetts.....	278	665,095	22	16,553,423	20,928	17,414,099
Rhode Island.....	209	518,817	17	7,116,792	12,086	7,326,000
Connecticut.....	116	181,319	6	2,715,964	5,153	3,152,000
Vermont.....	7	7,254	.....	113,000	262	118,100
New York.....	117	211,659	12	3,640,237	7,407	4,900,772
New Jersey.....	43	63,744	13	2,086,104	2,408	1,722,810
Pennsylvania.....	106	146,494	40	5,013,007	5,522	3,325,400
Delaware.....	11	24,492	.....	332,272	566	330,500
Maryland.....	21	41,182	3	1,150,580	2,224	1,304,400

Statistics of the cotton manufacture, &c.—Continued.

States.	Number of mills.	Number of spindles.	Dyeing and printing establishments.	Value of product.	Number of persons employed.	Capital.
Virginia	22	42,262	1	446,063	1,816	1,299,020
North Carolina	25	47,934	.....	438,900	1,219	995,300
South Carolina	15	16,355	.....	359,000	570	617,450
Georgia	19	42,589	2	304,342	779	573,835
Alabama	14	1,502	.....	17,547	82	35,575
Mississippi*	53	318	.....	1,744	81*	6,420
Louisiana	2	706	.....	18,900	23	22,000
Tennessee	38	16,813	.....	325,719	1,542	463,240
Kentucky	58	12,358	5	329,380	523	316,113
Ohio	8	13,754	.....	139,378	246	113,500
Indiana	12	4,985	1	135,400	210	142,500
Arkansas	2	90	.....	.....	7	2,125
Total	1,240	2,284,631	129	46,350,453	72,119	51,102,359

* Evidently erroneous; probably three mills, and eighteen persons employed.

The report of the seventh United States census (for 1850) does not mention cotton mills or spindles. Its statistics of the cotton manufacture specify the capital employed, value of the production, number of persons employed, and some other items of information that would be useful if they were reliable. It fails to supply the details necessary to a comparison of the cotton manufacture in 1850 with that of 1840 and 1860.

In a compendium of the seventh census, prepared by J. D. B. DeBow in 1854, are to be found some statistics that were omitted in the large quarto report. Some of these are included in Table 196 in the compendium, upon "cotton manufactures, 1850." Still the table,¹ like the census report, omits mention of the cotton spindles, and as an exhibit of the manufacturing capacity of the cotton mills in the several States is very unsatisfactory and inaccurate. The number of mills in Rhode Island, their capital and their product, are set down as less in 1850 than they were by the census of 1840, when, in fact, there had been a large increase.

According to the annual cotton crop statement, published by the New York Shipping List for the year 1849-50, the total quantity of cotton taken for home consumption that year was 613,000 bales, for all uses, north and south, of which not more than 600,000 bales could have been consumed by the spinning machinery. DeBow's table states the con-

¹The table referred to is copied (without credit, however) into the Supplement on Cotton Statistics and Manufactures, by P. L. Simmonds, appended to the edition of Ure's Cotton Manufactures of Great Britain, published by Bohn, London, 1861. Our country should supply more carefully prepared statistics for use in the preparation of works so valuable as those of Ure and Simmonds. (See Vol. 1, page 436.)

sumption of cotton at 641,240 bales, and so placed in the table as to bear the inference that it was consumed in the mills. If the cotton used in families for all purposes was included, then it would be nearer the right quantity.

AVERAGES OF CONSUMPTION, SPINDLES, AND YARN.

Through the well-directed efforts of the "National Association of Cotton Manufacturers and Planters," during the past year, some data have been obtained that are reliable and valuable as supplying a basis for computations of past as well as present and future quantities. In another place we shall make free use of their tables.

For the present these facts should be noted:

The present average annual consumption of cotton in all the United States is at the rate of 65 pounds per spindle; in the northern States the rate is 60.7 pounds, and in the southern States it is 138.12 pounds per spindle.

The average size or number of yarn produced is as follows: In the United States, $27\frac{1}{2}$, in the north 28, in the south $12\frac{7}{8}$.

There is a constant tendency to finer work as labor becomes more skilled and raw material more costly in proportion. Down to within a few years the number of yarn was as coarse as No. 14 in a large part of the northern production.

The average now being $27\frac{1}{2}$, it cannot be far wrong to place the average size of yarn for 1860, No. 23; for 1850, No. $22\frac{1}{2}$; for 1840, No. 20.

The consumption of 65 pounds of cotton per year to each spindle, for an average of No. $27\frac{1}{2}$ yarn, after allowing 20 per cent. gross waste, produces 52 pounds of yarn, equal to 1,430 hanks, which, for 300 working days, gives 4.76 hanks per day.

The better machinery now affords a higher rate of production than was generally practicable for the same yarn in the same time some years ago.

The coarser the yarn on equal speed, the greater will be the quantity of cotton used.

Comparing the work in 1850 with that now done, it will be well to assume, in the absence of stated facts, that in the year 1850 the average number of yarn was $22\frac{1}{2}$; the average rate, 4.8 hanks per day; the cotton consumed in mills, 600,000 bales, equal to 264,000,000 pounds; which, at 80 pounds per year for each spindle, would require 3,300,000 spindles to work it up.

Mr. Samuel Batchelder made a report to the Boston board of trade in 1861, upon the cotton manufacture, in which, by another process, he arrived at a result not widely different.

DEFECTIVE STATISTICS.

The errors in DeBow's compendium of the United States census for 1850 have been noticed. As the statistical work by the same compiler, J. D. B. DeBow, entitled "The Industrial Resources, &c., of the Southern and Western States," is often cited as good authority in matters per-

taining to cotton, its trade, and manufacture, it is well to say here, and show reason for saying, that its statistics generally in regard to manufactures of cotton are quite erroneous, and not to be accepted until verified.¹

In volume 1, page 210, he says: "In 1840 the cotton used annually in our mills was 106,000,000 pounds; capital invested was [1] \$80,000,000; annual value of cotton manufacture [2] \$60,000,000. In the same year there were in operation in the New England States 1,590,140 spindles. The whole number of cotton spindles in the United States in 1850 was 2,500,000, showing an increase of 20 per cent. in the last ten years, [3.] Of the present actual condition of the cotton manufacture in this country we cannot speak with entire certainty until the returns of the census for 1850 are published. We are deficient in details, but for the figures given above, derived chiefly from a work on American cotton manufactures by Robert H. Baird, 1851, we can speak with confidence of the 2,500,000 [4] cotton spindles now in the United States; 150,000 are in the southern States and 100,000 in the western."

The foregoing is a literal quotation.

(1.) The census of 1840 stated the capital at \$51,102,359.

(2.) The census of 1840 stated the annual product at \$46,350,453.

(3.) Although the census of 1840 is not mentioned, and in other particulars its statistics are displaced by his own, here Mr. DeBow refers to the number of spindles in the census of 1840, upon which there is an increase of 20 per cent.

(4.) There is nothing but bare assertion for the 2,500,000 spindles in 1850. See its contradiction by himself below.

From page 220 of the same volume is quoted: "The following returns, based partly on the official census, show the number of mills and spindles in each of the New England States using cotton wholly, leaving out all of those engaged in the manufacture of warps for satinetts, merino shirts, mousseline delaines, and shawls of mixed materials, of which it forms a component part:

" Mills, spindles, and looms in New England.

States.	Mills.	Looms.	Spindles.	
			1850.	1840.
Maine	15	3, 439	113, 900	29, 736
New Hampshire	40	12, 462	440, 401	195, 173
Massachusetts	165	32, 655	1, 288, 091	665, 095
Vermont	12	345	31, 736	7, 254
Rhode Island	166	28, 233	624, 138	518, 817
Connecticut	109	6, 506	252, 812	181, 319
Total	507	* 82, 640	† 2, 754, 078	1, 597, 304

* The clerical errors in the footings follow the original.

† Here we see 2,754,078 spindles for New England alone, whereas in the statistics which he "could use with confidence," Mr. DeBow stated the number to be 2,500,000 for all the United States.

¹ See Appendix K for another of Mr. DeBow's tables of cotton statistics.

“This shows a very considerable increase of production; being nearly 90 per cent. in the number of spindles.”

That there was no proper statement of the cotton manufacture in 1850, was attributable to Mr. DeBow, who had charge of the census statistics. He should have all the credit due to his work.

Statistics of the cotton manufacture in the United States for the year ending June 1, 1860; (from the eighth U. S. Census Report, by J. G. C. Kennedy.)

States.	No. of mills.	No. of spindles.	No. of looms.	Capital invested.	Pounds of cotton used.	Value of raw material.	No. persons employed.	Cost of labor.	Value of product.
Maine	19	300,000	6,000	\$6,108,325	23,438,723	\$3,000,000	6,250	\$1,244,928	\$6,636,623
New Hampshire	44	669,885	17,015	13,878,000	39,212,644	9,758,921	20,159	4,374,520	16,661,531
Vermont	10	19,712	424	321,000	1,057,250	133,000	367	78,468	357,400
Massachusetts	200	1,739,700	44,978	33,300,000	126,666,089	14,778,344	34,988	7,221,156	36,745,864
Rhode Island	135	706,000	26,000	11,500,000	38,321,608	5,281,000	12,089	2,417,640	12,258,637
Connecticut	64	464,000	8,787	6,000,000	15,799,140	4,000,000	7,589	1,453,128	7,641,460
New York	70	328,816	7,511	5,427,079	25,910,876	2,988,270	7,331	1,271,592	7,471,961
Pennsylvania	151	358,578	10,678	8,253,640	32,855,669	6,732,275	12,720	2,365,912	11,759,000
New Jersey	29	96,112	1,181	1,845,500	2,257,885	1,693,663	2,224	435,684	3,250,770
Delaware	11	25,704	494	572,000	2,717,000	521,492	1,007	202,884	919,103
Maryland	19	49,891	1,520	2,214,500	12,030,119	1,641,913	2,515	464,112	2,796,877
District of Columbia	1	2,560	82	45,000	294,117	47,403	95	19,800	74,400
Ohio	7	15,000	400	250,000	1,815,000	250,000	610	112,400	629,500
Indiana	2	11,000	375	250,000	800,000	100,000	366	72,468	349,000
Illinois	3	.....	.....	10,000	40,000	8,000	16	1,980	15,987
Missouri	3	14,500	.....	169,000	100,000	14,500	170	31,080	230,000
Kentucky	4	9,500	.....	104,000	311,000	139,000	146	21,000	167,500
Virginia	13	28,700	324	1,325,243	7,302,797	770,977	1,693	262,440	1,063,611
North Carolina	36	30,144	479	1,049,750	5,152,750	564,612	1,626	168,840	930,567
South Carolina	17	16,461	931	827,825	3,845,811	419,500	956	132,180	588,950
Georgia	32	44,312	1,058	1,854,603	12,977,904	1,689,075	3,285	482,520	2,215,636
Florida	1	.....	.....	200,000	200,000	22,000	65	7,872	40,000
Alabama	11	28,540	663	1,306,500	4,389,641	623,963	1,332	206,124	917,105
Louisiana	2	4,225	150	1,075,000	1,995,700	283,900	140	24,000	509,700
Texas	1	2,700	100	500,000	588,000	78,920	160	36,480	99,241
Mississippi	4	1,844	28	350,000	534,400	163,419	310	33,996	261,135
Arkansas	1	.....	.....	55,000	60,000	6,750	30	7,200	13,000
Tennessee	25	7,914	80	930,000	3,172,000	283,838	681	109,764	533,348
Totals	915	5,085,798	129,458	99,551,465	364,036,133	55,994,735	118,920	23,360,168	115,137,926

From the foregoing table appear the following averages per spindle in most of the States:

Averages per spindle according to the table,

States.	Capital invested.	Pounds cotton consumed.	Product.	Value per lb. of raw material.
Maine	\$20 36	78. 13	\$22 12	\$0 12½
New Hampshire.....	20 71	58. 52	24 87	25
Vermont	16 30	56. 20	18 13	12½
Massachusetts.....	19 14	72. 81	21. 12	11½
Rhode Island.....	15 00	50. 30	16 00	13½
Connecticut	12 93	34. 05	16 47	25½
New York	16 50	79. 11	22 73	11½
Pennsylvania	23 00	91. 60	32 79	20½
* New Jersey.....	19 20	22. 49	33 83	75
Delaware	22 25	105. 72	35 76	19½
Maryland	44 38	240. 92	56 05	13½
Ohio	16 67	121. 00	41 97	13½
Indiana	22 73	72. 72	31 73	12½
Missouri	11 65	6. 89	15 86	14½
Kentucky.....	10 95	32. 74	17 63	44½
Virginia	46 18	257. 93	37 06	10½
North Carolina.....	34 82	170. 93	30 87	11
South Carolina.....	50 29	233. 63	35 17	11
Georgia.....	41 85	292. 87	50 00	13
Alabama	45 77	153. 80	32 13	14½

* The light quantity of cotton consumed and large value per pound of the raw material in New Jersey indicates thread spinning and the use of sea island and other costly cotton. This is confirmed by the small number of looms.

The Preliminary Report on the Eighth Census, by J. G. C. Kennedy, superintendent, says of the facts exhibited in the foregoing census table:

“The product per spindle varies in the different States, partly accounted for by the fact that many manufacturers purchase yarns which have been spun in other States. * * * * The quantity of cotton used in the fabrication of the above goods was 364,036,123 pounds, or 910,000 bales of 400 pounds each. Of this amount the New England States consumed 611,738 bales, and Massachusetts alone 316,655. The consumption per spindle in that year in the various sections was as follows:

Consumption of cotton per spindle.

	No. of spindles.	Pounds of cotton.	Pounds per spindle.
In New England.....	3, 959, 297	237, 844, 854	61. 8
In the middle States	861, 661	76, 055, 666	88. 26
*In the southern States	174, 340	40, 530, 003	232. 48
In the United States	5, 035, 798	364, 036, 123	72. 2

* We have interpolated this line showing in a separate aggregate the spindles and consumption of the southern States (south of the Potomac) from the census table. The cotton consumed must include cotton used in families, or otherwise than upon mill spindles, the utmost capacity of which would be equal to the consumption of a quantity only about half as large as the above rate per spindle.

STATISTICS FROM THE NATIONAL ASSOCIATION OF COTTON MANUFACTURERS AND PLANTERS.

Allusion has been made to the publications of the "National Association of Cotton Manufacturers and Planters." That association was organized in the early part of the last year, chiefly "to promote the cultivation of cotton in our country, and a recognition of the identity of interests between the cotton planters and manufacturers; and generally to accomplish by associated efforts whatever may be for the common good within the sphere of the association, shunning everything of a local or partial character."

By the courtesy of the officers of that association we are permitted to take the following table and remarks from a report prepared by its statistical committee, to be presented at an approaching meeting to be held in Baltimore.

The table is compiled from the actual returns made from the mills, in number and locality as stated, and these carefully collected by the secretary of the association. The number of spindles is less than 7,000,000.¹

Synopsis of returns from cotton mills, January 30, 1869.²

States.	Mills.	Spindles.	Average number of yarn.	Cotton spun.	Average per spindle.	Cotton otherwise used.
				<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Maine	22	443, 800	24 $\frac{5}{8}$	28, 838, 608	65	.....
New Hampshire.....	49	734, 460	25 $\frac{3}{8}$	48, 089, 439	65. 46	1, 297, 600
Vermont	16	28, 038	29 $\frac{1}{2}$	1, 281, 125	45. 69	953, 500
Massachusetts.....	150	2, 386, 002 $\frac{1}{2}$	27 $\frac{1}{2}$	138, 081, 144	57, 87	197, 000
Rhode Island.....	126	1, 082, 376	35 $\frac{1}{4}$	51, 938, 373	47, 06	890, 800
Connecticut	81	545, 528	29	31, 652, 920	58	492, 500
New York	88	437, 482	32 $\frac{5}{8}$	22, 097, 044	50. 51	4, 125, 000
New Jersey.....	30	175, 042	32 $\frac{3}{8}$	10, 767, 600	61. 51	7, 000
Pennsylvania	71	384, 828	17	34, 806, 531	90. 45	2, 336, 500
Delaware	9	48, 892	21	3, 288, 280	67. 46	.....
Maryland	11	45, 502	12 $\frac{3}{8}$	7, 972, 896	175. 22	.....
Ohio	5	22, 834	13	3, 170, 000	138. 82	600, 000
Indiana	1	10, 800	14	1, 493, 061	138. 26	.....
Illinois	1	.....	.....	.....	.....	126, 500
Missouri	4	13, 436	10	2, 475, 000	184. 21	.....
Northern	664	6, 359, 020	28	385, 952, 021	60. 7	11, 026, 400
Virginia	10	36, 060	15 $\frac{7}{8}$	4, 010, 000	111. 18	.....
North Carolina.....	17	24, 249	10 $\frac{1}{2}$	3, 537, 000	145. 85	.....
South Carolina.....	6	31, 588	13 $\frac{3}{8}$	4, 174, 100	132. 14	.....
Georgia	20	69, 782	12 $\frac{3}{8}$	10, 864, 350	155. 70	.....
Alabama	8	25, 196	17	2, 820, 596	112	.....

¹ See appendix (F) for the report upon cotton spinning in the United States, as made by the international jury of the Paris Exposition, 1867.

² From the records of the National Association of Cotton Manufacturers and Planters.

Synopsis of returns from cotton mills, January 30, 1869—Continued.

States.	Mills.	Spindles.	Average number of yarn.	Cotton spun.	Average per spindle.	Cotton otherwise used.
Mississippi	6	8,752	9	1,457,000	166.48	.....
Texas	4	8,528	9½	1,372,104	160.90	.....
Arkansas	2	924	8½	258,400	268.83	.....
Tennessee	10	13,720	10	1,847,200	134	.....
Kentucky	3	6,264	10	1,075,000	171.62	.....
Southern	86	225,063	12½	31,415,750	138.12	.....
Northern States	664	6,359,020	28	385,952,021	60.70	11,026,400
Southern States	86	225,063	12½	31,415,750	138.12	.....
Total	750	6,584,083	27½	417,367,771	64.88	11,026,400

There are not probably more than 100 mills nor more than 250,000 spindles in the country not yet returned.

The secretary has upon his list only 81 mills unreported, in which he estimates that there are 233,000 spindles. This list includes all of which he can get any mention whatever.

In explanation of the greater number of mills (1,091) reported in the census of 1860, he submits the following:

Mills of which he has returns	750
Mills on his list not returned	81
Mills originally on his list not now using cotton:	
That have ceased running	72
Consolidated with others	14
Printing only	11
Weaving only	75
Using waste from other mills	10
	<u>182</u>
Total	<u>1,013</u>

It is probable that many factories were classed as cotton mills in the census of 1860, which would be excluded by us as not properly cotton-spinning mills. The secretary finds that cotton in considerable quantities is "used otherwise than in cotton-spinning." He is trying to get complete returns of it, but finds obstacles not easily overcome, and is satisfied that the partial returns stated in the column for "cotton not otherwise used" do not represent one half the proper quantity.

The mills reporting which spin cotton use per year	417, 367, 771 pounds.
Eighty-one mills not reporting are estimated to use	27, 960, 000 pounds.
Cotton otherwise used, that is, for textile fabrics, batting, &c., but not in cotton mills proper, esti- mated at.....	24, 672, 229 pounds.
	<hr/>
	470, 000, 000 pounds.
Deduct, for the exceptional cases in which the quantity reported is the usual consuming capaci- ty, and not the actual consumption of the year	20, 000, 000 pounds.
	<hr/>
Total consumption for 1868, (in part estimated, as above).....	450, 000, 000 pounds.
	<hr/> <hr/>
Of which was used in the southern States, about.	38, 000, 000 pounds.
	<hr/> <hr/>

INCREASE OF MANUFACTURED GOODS.

The sum of the increase of the manufacture of cotton goods and yarns in the United States is shown approximately in the following recapitulation of the aggregates at the decennial periods:

Sum of increase of the manufacture of cotton goods.

Year.	No. of mills.	No. of spin- dles.	Pounds cot- ton con- sumed.	Average per spin- dle.	Average No. of yarn.
1840	1, 240	2, 284, 631	171, 201, 218	74. 94	20
1850		3, 300, 000	264, 000, 000	80.	22½
1860	915	5, 035, 798	364, 036, 123	72. 2	23
1868	831	6, 817, 083	450, 000, 000	64. 88	27½

The rate of increase thus appears to have been—

1840 to 1850...in spindles 44.4 per cent....in cotton used 54.2 per cent.
1850 to 1860...in spindles 52.6 per cent....in cotton used 37.9 per cent.
1860 to 1868...in spindles 35.4 per cent....in cotton used 23.6 per cent.
1840 to 1868...in spindles 198.3 per cent....in cotton used 162.8 per cent.

We do not find any complete statistics of the various kinds of cotton goods produced. The custom-house returns afford some materials for a table of cotton goods exported, which table will be found in the appendix, (E), embracing, however, only plain white or brown goods, and only from the ports of New York and Boston for the years 1849 to 1868, inclusive. This table shows nearly the whole export of domestic cottons, and in a comparison of the several years the fluctuations of increase and diminution may be observed. In the appendices (D) and (H) will be found a table containing the principal facts of the British trade and manufac-

ture of cotton. The statement for the calendar year 1868, in Great Britain, stands thus: ¹

Imports, exports, and consumption in Great Britain, 1868.

	Bales.	Pounds.
Stock held by spinners January 1	80,000	30,253,000
Stock in the ports January 1	554,800	191,415,360
Import during the year	3,660,130	1,296,957,930
Total supply	4,294,930	1,518,625,290
Export during the year	915,120	315,195,100
Stocks held by spinners December 31.....	80,000	28,953,000
Stocks in the ports December 31	497,870	178,280,090
Total deduction	1,492,900	522,422,190
Leaving as the actual consumption	2,801,940	996,197,100

Which compares as follows with the preceding nine years :

Year.	Bales.	Pounds.	Year.	Bales.	Pounds.
1868.....	2,801,940	996,197,100	1863.....	1,303,500	476,445,000
1867.....	2,552,498	954,517,505	1862.....	1,185,500	449,821,000
1866.....	2,406,394	890,721,031	1861.....	2,363,600	1,005,477,000
1865.....	2,034,730	718,651,000	1860.....	2,523,000	1,079,321,000
1864.....	1,566,400	561,196,000	1859.....	2,296,700	977,633,000

In order to give a correct comparison of the amount of cotton consumed in each of the past ten years, we have reduced the bales to the uniform weight of 400 pounds each, as follows :

Amount of cotton consumed, 1859 to 1868.

Year.	Total in bales of 400 pounds.	Average per week.	Years.	Total in bales of 400 pounds.	Average per week.
1868.....	2,490,490	47,890	1863.....	1,191,110	22,910
1867.....	2,386,290	45,890	1862.....	1,124,550	21,620
1866.....	2,226,800	42,820	1861.....	2,563,690	49,300
1865.....	1,796,639	34,550	1860.....	2,698,300	51,890
1864.....	1,402,990	26,980	1859.....	2,444,080	47,000

As compared with 1867, the consumption of 1868 shows an increase of only 2,000 bales of 400 pounds per week.

In Simmonds's statistical supplement to Ure's Cotton Manufacture of

¹ From Ellison & Haywood's Annual Review, for the year 1868, published in Liverpool January 14, 1869.

Great Britain, London, 1861, page 397, the items of the following table are found :

Year.	Pounds cotton consumed.	No. of persons employed in cotton mills.	No. of spindles.	Average weight of cotton consumed per spindle.
1856	891, 400, 000	379, 213	28, 010, 217	31 $\frac{3}{4}$ pounds.
1859	976, 600, 000	415, 423	30, 759, 363	31 $\frac{3}{4}$ pounds.
1860	1, 050, 895, 000	446, 999	33, 099, 056	31 $\frac{3}{4}$ pounds.

A parliamentary return stated that there were in Great Britain, in 1850, 20,858,062 spindles, consuming 629,798,400 pounds cotton, equal to 30 pounds per spindle.

The increase of cotton spindles in Great Britain since 1860 is estimated to exceed 10 per cent. If now only 36,500,000 in number, and using the same number of pounds of cotton per spindle when fully employed, as in 1859-'60, they would require about 1,159,000,000 pounds. The quantity used in 1868, 996,197,000 pounds, was only about 85 per cent. of the quantity required for the machinery to run full.

The following very interesting statistics of European cotton trade and manufacture are derived from the Annual Review of Messrs. Ellison & Haywood, of Liverpool, who give credit for some of the *continental* figures to Messrs. Stolterfoht, Sons & Co. :

A comparative statement of the movements of cotton in Europe and the United States, 1868, 1867, 1866, and 1860.

Countries.	Import—bales.				Total yearly deliveries for consumption—bales.			
	1868.	1867.	1866.	1860.	1868.	1867.	1866.	1860.
Great Britain, (less export).....	2,745,000	2,486,000	2,612,000	2,738,000	2,804,000	2,512,000	2,436,000	2,633,000
France.....	714,000	551,000	688,000	738,000	696,000	608,000	614,000	621,000
Holland.....	162,000	145,000	186,000	310,000	162,000	141,000	184,000	117,000
Belgium.....	103,000	45,000	72,000	56,000	103,000	45,000	72,000	64,000
Germany.....	459,000	394,000	409,000	305,000	477,000	371,000	403,000	307,000
Trieste.....	88,000	84,000	52,000	83,000	93,000	79,000	51,000	77,000
Genoa.....	25,000	22,000	17,000	94,000	25,000	23,000	15,000	72,000
Spain.....	159,000	140,000	132,000	136,000	161,000	138,000	127,000	106,000
Russia, &c.....	295,000	346,000	294,000	278,000	295,000	346,000	394,000	324,000
Total for Europe.....	4,750,000	4,213,000	4,462,000	4,768,000	4,816,000	4,263,000	4,196,000	4,321,000
United States, (north) ¹.....	.....	.....	.....	.....	819,000	723,000	667,000	860,000
Total Europe and America.....	.....	.....	.....	.....	5,635,000	4,986,000	4,863,000	5,181,000

¹ The figures for the United States are for the seasons ended August 31, except as regards the stocks, which are the quantities on hand at the close of the year.—[E. & H. Review.]

A comparative statement of the movements of cotton, &c.—Continued.

Countries.	Deliveries for consumption.										Stock in the ports Dec. 31—bales.		
	Weekly averages—bales.			Yearly totals, in millions of pounds.							1866.	1867.	1860.
	1868.	1867.	1866.	1860.	1868.	1867.	1866.	1860.	1868.	1867.	1860.		
Great Britain	53,880	48,317	46,885	50,633	985.5	939.3	915.7	1,136.9	497,000	554,000	595,000		
France	13,384	11,692	11,808	11,942	249.8	218.3	218.8	269.7	80,000	62,000	105,000		
Holland	3,115	2,712	3,538	2,250	57.3	50.0	65.4	48.3	11,000	11,000	22,000		
Belgium	1,980	866	1,385	1,331	37.5	16.4	25.5	26.5	.....	.....	2,000
Germany	9,173	7,134	7,750	5,904	169.3	131.7	136.9	127.1	15,000	33,000	20,000		
Trieste	1,788	1,519	981	1,452	34.8	29.6	18.4	31.7	2,000	7,000	10,000		
Genoa	480	442	288	1,385	8.7	8.0	5.3	31.0	2,000	2,000	8,000		
Spain	3,096	2,654	2,442	2,039	48.9	41.9	38.1	46.4	9,000	11,000	20,000		
Russia, &c	5,673	6,654	5,654	6,211	98.5	115.6	100.3	137.1	.....	.....	.....
Total for Europe	92,569	81,990	80,731	83,077	1,690.3	1,550.8	1,524.4	1,844.7	610,000	680,000	782,000		
United States, (north) ¹	15,750	13,900	12,830	16,540	362.8	321.0	294.1	382.7	312,000	360,000	629,000		
Total Europe and America	108,319	95,890	93,561	99,617	2,053.1	1,871.8	1,818.5	2,227.4	922,000	1,040,000	1,411,000		

¹ The figures for the United States are for the seasons ended August 31, except as regards the stocks, which are the quantities on hand at the close of the year.—[E. & H. Review.]

The deliveries to Great Britain in 1868 show a decrease of 343,500 bales (of average of 400 pounds each) compared with 1860, while those to Holland and Germany together show an increase of 128,000 bales of same weight. The absolute increase in the consumption of Great Britain in 1868 over 1867 was only a trifle over the increase in Germany, the figures being 115,000 and 112,000, respectively.

The aggregates for the several years in the foregoing table differ a little from those in our own comparative table on page 49, because the latter were computed for years ending 30th September in Europe and 31st August in the United States, while the former represent the results for the calendar years. (See Table H in the Appendix.)

CONCLUSION.

The experience of the past year fully justifies the conclusion stated in the report made from this commission in August, 1867. The peculiar advantages of our country for producing cotton are rapidly regaining the position held before the war—quite fast enough, in view of the extraordinary change in the condition of the laboring population and of the wastes by war.

The cotton-planting States should continue to produce, as of first necessity, ample supplies of food for home use. The power of high prices (the seasons being favorable) will not fail to secure a progressive increase in the production of cotton at a cost cheapening from year to year, until its excess shall at length drive from competition the cotton of less favored countries.

B. F. NOURSE, *Commissioner.*

BOSTON, *February 1, 1869.*

APPENDICES.

APPENDIX A.

CAPITAL INVESTED IN THE CULTURE OF COTTON IN 1835.

The following statement of the capital invested in the culture of cotton in 1835 is taken from "Woodbury's Tables and Notes on the Cultivation, Manufacture and Foreign Trade of Cotton"—a report to Congress March 4, 1836, before cited in this report.

"The crop of 1834-'35 was set down by the same authority, and correctly, at 460,000,000 pounds, which would be 230 pounds per acre on the area of land as stated below.

"The capital invested in cotton lands under cultivation at 2,000,000 acres, and worth, cleared, on an average, \$20 per acre, is	\$40,000,000
"The capital in field hands, and in other lands, stock, labor, &c., to feed and clothe them, at \$100 per year, on 340,000 in number, would require the interest or income of a capital at 6 per cent. of.....	544,000,000
"The maintenance of 340,000 more assistants, &c., at \$30 each per year, would require the income of a capital at six per cent. of.....	167,000,000
"The capital to supply enough interest or income to pay for tools, horses for ploughing cotton, taxes, medicines, overseers, &c., at \$30 for the first 340,000, would be.....	167,000,000
" Making in all a permanent capital equal to	<div style="border-top: 1px solid black; border-bottom: 3px double black; padding: 2px 0;">918,000,000"</div>

Apply to this formula the quantities and values of 1860, and we should have a total capital of \$2,682,000,000 employed in producing the crop of 1859-'60, allowing 240 pounds to the acre.

The capital now required for the production of 3,000,000 bales per annum, of 450 pounds each, is but little more than the value of about 8,000,000 acres of land, and buildings which at present values can hardly exceed \$100,000,000, and so much more capital as would pay from its interest the wages and maintenance of laborers a few months until crops begin to come in. The latter portion of the required capital rests chiefly in the surplus of crops for subsistence carried forward from the previous harvest.

APPENDIX B.

THE AUGUSTA COTTON MANUFACTURING COMPANY OF AUGUSTA, GA.

It appears from the report of the president of the company, Mr. William E. Jackson, that the gross earnings of the company during the six months ending June 30, 1868, amounted to \$135,510 65; interest received, \$3,921 65; total, \$139,432 30. The expenses and taxes for the same time were \$31,898 16; leaving a net profit of \$107,544 14. Two dividends amounting to \$60,000 were paid, enabling the company to carry to the credit of profit and loss account \$47,534 14, making the amount at present to that account, \$224,798 22. The goods manufactured from December 14, 1867, to June 13, 1868, were, pounds, 1,184,845; pieces, 98,348; yards, 3,888,301. The cotton consumed amounted to 1,362,571 pounds; average cost of cotton, 19.98; the average number of yards per loom made daily was 49 1-5; number of looms running, 505; number of hands employed, 507; aggregate wages paid, \$87,546 93; aggregate sales, \$519,965 01. Between June 13, 1865, and June 30, 1868, the company increased its machinery to the extent of \$92,686 76 worth, and paid to the stockholders \$360,000. The company commenced business with a capital of \$60,000. The gold value of their property on the 30th of June last, irrespective of the \$224,798 22 before mentioned as standing to their credit, was \$600,000. The aggregate sales of the company since their organization have amounted to \$3,765,301 80; the wages paid to \$622,280 15; average number of hands employed, 578, and the average number of yards per loom per day 45.90. Their production during three years was, pounds, 6,261,655; pieces, 527,114; yards, 20,364,919. The original factory property was purchased about ten years ago from the city of Augusta for \$140,000, on ten years' credit. Already the entire property has been paid for.

APPENDIX C.

NATIVE PHOSPHATES OF SOUTH CAROLINA.

Dr. N. A. Pratt, the chemist and general superintendent of the Charleston, South Carolina, Mining and Manufacturing Company, has contributed an article to the Southern Cultivator upon the discovery and extent of the phosphatic deposits, and the following is abridged from his description.

The calcareous beds of South Carolina are justly considered the most remarkable perhaps in the world, and very early attracted attention; and in the time of the late venerable Edmund Ruffin, esq., were extensively explored and analyzed. Many subsequent explorers—among whom stand pre-eminent Professor M. Tuomey, State geologist of South Carolina,

and Professor F. S. Holmes, of the Charleston college—have so systematically explored and studied these beds that, previous to the year 1850, they were as well and widely known geologically and palæontologically as any other equally extensive in the world.

The calcareous marls of South Carolina have been closely studied, classified, and analyzed, and their value as marls, containing a small percentage of phosphate of lime, has been known for 20 years; but there is another bed, not of marl, but adjacent to these, equally well known and described, the composition of which has, until lately, been unknown and misunderstood.

Reference to the *Geology of South Carolina*, by Professor M. Tuomey, published in 1848, will show all that was known of them up to the year 1867, viz:

1st. That the calcareous beds of this section had been carefully studied, classified, and analyzed, and were known to contain from 50 to 85 per cent. of carbonate of lime, and from 2 to 9.20 per cent. of phosphate of lime.

2d. That the marlstones, nodules, or conglomerates, (constituting a bed which overlies the newer eocene marls,) bedded in the clay, were universally considered as silicified, having lost all or most of their lime, which rarely exceeded six per cent.—(Tuomey's *Geology of South Carolina*, p. 165.)

3d. That the fossil bones, marine and terrestrial, were also considered petrified or silicified.

See, also, the magnificent work on the "Post Pliocene Fossils of South Carolina," by Professor F. S. Holmes, (1859), Introduction, p. ii.

These are the published records; but Professor Holmes has informed Dr. Pratt that Professor Tuomey made a crude analysis of these nodules some years ago, and he thought the estimate was fifteen to sixteen per cent. of phosphate of lime, but not enough to counterbalance the carbonate of lime, iron, and sand which they also contained, and it was considered unavailable for agricultural purposes.

During the late war, while in charge of the chemical department of the C. S. Nitre and Mining Bureau, and engaged in inspecting the saltpetre beds of Charleston and Ashley river, which were constructed under the charge of Prof. F. S. Holmes, Dr. Pratt's attention was repeatedly directed by Prof. Holmes to the remarkable accumulation of fossil bones in a bed long since described and known as the "Fish Bed of the Charleston Basin," and also to the existence of from two to nine per cent. of phosphate of lime in the heavy marls below, as indicated by the analysis of Prof. C. U. Shepard, published in the *Geology of South Carolina* in 1848. Knowing that the marls of Georgia were comparatively poor in that ingredient, rarely exceeding three per cent., the contrast was too striking to escape notice; and the doctor took various samples to Augusta, Georgia, for examination, but more urgent matters at that time prevented the analysis, and the fact was almost forgotten.

Later, in May, 1867, Dr. Pratt was fortunate enough to discover that a bed outcropping within ten miles of Charleston contained as large a percentage of phosphate of lime as any of the phosphatic guanos imported from the tropical islands, and used in this country and abroad, for the manufacture of fertilizers.

This bed has been long known in the history of the geology of South Carolina as the "Fish Bed of the Charleston Basin," on account of the abundant remains of the marine animals found in it, Professor Holmes, of the College of Charleston, having in his cabinet not less than 60,000 specimens of sharks' teeth alone, some of them of enormous size, weighing from two to two and a half pounds each! The bed outcrops on the banks of the Ashley, Cooper, Stono, Edisto, Ashepoo, and Combahee rivers, but is developed most heavily and richly on the former, and has been found as far inland as 40 or 50 miles.

Near the Ashley river it paves the public highway for miles; it seriously impedes and obstructs the cultivation of the lands, affording scarcely soil enough to "hill-up the cotton rows," and the phosphates have been for years past thrown into piles on the lawns, or into causeways over ravines, to get them out of the reach of the ploughs; it underlies many square miles of surface continuously, at a depth ranging from six inches to twelve or more feet, and exists in such quantities that in some localities from 500 to 1,000 tons or more underlie each acre. In fact, it seems that there are no rocks in this section which are not phosphates!

Chemical analyses made by Dr. Pratt, in the laboratory of Dr. Ravenel, showed that samples from different localities contain from 34 to 55 and 67 per cent. of phosphate of lime. A company was soon after organized for thoroughly working this invaluable deposit, and South Carolina has now become the exporter rather than the importer of fertilizers.

APPENDIX D.
STATISTICAL TABLES OF COTTON PRODUCTION AND CONSUMPTION.

TABLE I.—*Statistics of British cotton trade and manufactures from 1816 to 1867, inclusive.*

NOTE.—The stock in Liverpool, April 29, 1815, consisted of 3,418 bags, from all countries, of which only 205 bags were from the United States; the whole, 3,418 bags, at the weight of that day, being equal to only about one-fourth of one day's consumption in Great Britain in 1867-68.
The import of cotton from America into Liverpool was, in 1785, 5 bags; in 1786, 6 bags; in 1787, 108 bags.

	1816.	1817.	1818.	1819.	1820.	1821.
Stock in Great Britain, January 1, all kinds.....	.....	115, 800	161, 300	351, 800	396, 800	473, 100
Stock in Great Britain, January 1, all kinds.....	.....	29, 645, 000	42, 906, 000	93, 300, 000	111, 800, 000	137, 000, 000
Stock equal to supply for.....	.....	18	21	43	47	53
Stock in Great Britain, of American only.....	.....	27, 800	37, 200	64, 500	48, 000	108, 000
Import to Great Britain for the year, all kinds.....	369, 432	479, 261	668, 729	546, 135	577, 651	491, 678
Import to Great Britain from United States.....	166, 077	199, 639	207, 580	205, 161	302, 395	300, 070
Import to Great Britain from Brazil.....	123, 450	114, 518	162, 439	125, 415	186, 086	121, 085
Import to Great Britain from Egypt.....	.....	.....	.....	.....	.....	.....
Import to Great Britain from East Indies.....	30, 670	130, 202	247, 659	184, 259	57, 923	30, 095
Import to Great Britain from West Indies, &c.....	49, 235	44, 872	50, 991	31, 300	31, 247	40, 428
Weight of total import.....	93, 900, 000	134, 900, 000	177, 300, 000	149, 700, 000	143, 900, 000	129, 000, 000
Weight, average, per bale.....	256	266	263	264	249	262
Consumption in Great Britain per year, all kinds.....	337, 400	407, 000	422, 700	434, 300	466, 900	499, 100
Consumption in Great Britain per year, all kinds.....	88, 700, 000	107, 000, 000	109, 900, 000	109, 500, 000	120, 300, 000	129, 000, 000
Actual average consumption per week, all kinds.....	6, 488	7, 826	8, 129	8, 352	8, 979	9, 598
Actual average consumption per week, American.....	4, 036	3, 509	3, 343	3, 993	4, 579	5, 285
Average weekly consumption, bales, of 426 pounds each.....	5, 364	6, 515	6, 752	6, 926	7, 455	7, 971
Taken at Liverpool on speculation, year.....	28, 700	33, 700	24, 600	46, 800	26, 000	32, 000
Export from Great Britain, year.....	29, 300	26, 700	55, 500	66, 800	28, 400	52, 600
Weight of yarn in Great Britain, January 1.....	.....	.....	.....	16, 100, 000	16, 700, 000	23, 900, 000
Average price of Upland, in Liverpool, per pound.....	18½	20½	20	13½	11½	9½
Average price of Suratts, in Liverpool, per pound.....	15½	17	15½	9½	8½	7½
Extreme prices in Liverpool, New Orleans, "fair" to "good".....	22 a 24	20 a 23½	20½ a 25	15½ a 21	14 a 17	12½ a 14
Crop grown and received at ports in United States.....	.....	.....	.....	.....	430, 000	455, 000

TABLE I.—Statistics of British cotton trade and manufactures, &c.—Continued.

	1822.	1829.	1830.	1831.	1832.	1833.
Stock in Great Britain, January 1, all kinds.....	572, 200	525, 900	409, 300	415, 300	386, 300	330, 200
Stock in Great Britain, January 1, all kinds.....	104, 800, 000	147, 000, 000	115, 500, 000	118, 800, 000	114, 400, 000	103, 700, 000
Stock equal to supply for.....	44	37	29	26	23	19
Stock in Great Britain, of American only.....	334, 900	247, 800	182, 400	228, 800	225, 200	203, 000
Import to Great Britain for the year, all kinds.....	749, 552	746, 707	871, 487	903, 367	902, 322	930 216
Import to Great Britain from United States.....	444, 390	463, 076	618, 527	608, 887	638, 766	654, 786
Import to Great Britain from Brazil.....	187, 362	159, 536	191, 468	108, 288	114, 585	163, 193
Import to Great Britain from Egypt.....	32, 889	24, 739	14, 752	38, 124	41, 183	3, 893
Import to Great Britain from East Indies.....	84, 555	80, 489	35, 019	76, 764	109, 298	94, 698
Import to Great Britain from West Indies, &c.....	20, 056	18, 867	11, 721	11, 304	8, 490	13, 646
Weight of total import.....	219, 800, 000	221, 800, 000	261, 200, 000	280, 500, 000	287, 800, 000	304, 200, 000
Weight, average, per bale.....	293	297	300	310	319	327
Consumption in Great Britain per year, all kinds.....	732, 200	745, 200	832, 100	857, 800	891, 300	880, 000
Consumption in Great Britain per year, all kinds.....	217, 900, 000	219, 200, 000	247, 600, 000	262, 700, 000	276, 900, 000	287, 000, 000
Actual average consumption per week, all kinds.....	14, 080	14, 331	16, 002	16, 496	17, 140	16, 923
Actual average consumption per week, American.....	9, 835	9, 631	10, 608	11, 558	12, 059	12, 528
Average weekly consumption, bales of 420 pounds each.....	11, 696	11, 907	13, 058	14, 257	13, 708	14, 062
Taken at Liverpool on speculation, year.....	96, 000	41, 500	65, 000	35, 500	90, 600	268, 000
Export from Great Britain, year.....	63, 700	118, 100	33, 400	74, 600	67, 100	67, 800
Weight of yarn in Great Britain, January 1.....	44, 900, 000	50, 500, 000	57, 300, 000	62, 700, 000	58, 800, 000	71, 700, 000
Average price of Upland, in Liverpool, per pound.....	6½	5½	6½	6	6½	8½
Average price of Surats, in Liverpool, per pound.....	4½	4	5	4½	5	6½
Extreme prices in Liverpool, New Orleans "fair" to "good".....	8 a 9	7½ a 9	8 a 9	7½ a 8	8 a 9	9 a 14
Crop grown and received at ports in United States.....	870, 000	977, 000	1, 039, 000	987, 000	1, 070, 000	1, 205, 000
Consumption in United States, year ending August 31.....	125, 000	115, 000	140, 000	165, 000	195, 000	215, 000
Consumption on continent of Europe, year ending December 31.....	371, 800	473, 800	367, 900	447, 200	468, 700	470, 000

TABLE I.—Statistics of British cotton trade and manufactures, &c.—Continued.

COTTON.

	1834.	1835.	1836.	1837.	1838.	1839.
Stock in Great Britain, January 1, all kinds..... bales.....	300, 100	245, 600	280, 000	364, 000	359, 300	471, 000
Stock in Great Britain, January 1, all kinds..... pounds.....	94, 400, 000	82, 300, 000	89, 600, 000	116, 300, 000	115, 000, 000	160, 900, 000
Stock equal to supply for..... weeks.....	18	14	15	19	18	20
Stock in Great Britain, of American only..... bales.....	173, 600	159, 500	144, 300	137, 500	158, 100	316, 100
Import to Great Britain for the year, all kinds..... do.....	951, 034	1, 091, 253	1, 203, 374	1, 175, 975	1, 428, 600	1, 116, 200
Import to Great Britain from United States..... do.....	733, 528	763, 197	764, 707	844, 812	1, 124, 800	814, 500
Import to Great Britain from Brazil..... do.....	103, 646	143, 572	148, 715	117, 000	137, 500	99, 300
Import to Great Britain from Egypt..... do.....	7, 277	43, 721	34, 953	41, 193	29, 700	33, 500
Import to Great Britain from East Indies..... do.....	89, 098	117, 965	219, 493	143, 174	107, 200	132, 900
Import to Great Britain from West Indies, &c..... do.....	17, 485	22, 796	35, 506	27, 791	29, 400	36, 000
Weight of total import..... pounds.....	380, 600, 000	361, 700, 000	410, 800, 000	408, 200, 000	501, 000, 000	388, 600, 000
Weight, average, per bale..... do.....	337	331	342	347	350	348
Consumption in Great Britain per year, all kinds..... bales.....	918, 700	954, 100	1, 011, 500	1, 057, 300	1, 206, 600	1, 114, 400
Consumption in Great Britain per year, all kinds..... pounds.....	303, 400, 000	318, 100, 000	347, 400, 000	365, 700, 000	416, 700, 000	381, 700, 000
Actual average consumption per week, all kinds..... bales.....	17, 667	18, 348	19, 452	20, 333	23, 204	21, 430
Actual average consumption per week, American..... do.....	13, 592	14, 073	14, 370	14, 971	17, 564	15, 644
Average weekly consumption, bales, of 426 pounds each..... bales.....	15, 243	14, 679	16, 161	16, 896	18, 844	17, 055
Taken at Liverpool on speculation, year..... bales.....	222, 300	145, 100	152, 500	199, 000	291, 500	263, 000
Export from Great Britain, year..... do.....	86, 800	102, 800	105, 900	123, 400	103, 300	117, 300
Weight of yarn in Great Britain, January 1..... pounds.....	67, 800, 000	78, 700, 000	82, 500, 000	85, 200, 000	105, 100, 000	113, 700, 000
Average price of Upland, in Liverpool, per pound..... pence.....	8½	10½	9½	7	7	7½
Average price of Surats, in Liverpool, per pound..... do.....	6½	7½	6½	4½	5	5½
Extreme prices in Liverpool, New Orleans "fair" to "good"..... do.....	10 a 12½	12 a 14	12 a 14	9 a 13	9½ a 10	9 a 11
Crop grown and received at ports in United States..... bales.....	1, 254, 000	1, 361, 000	1, 423, 000	1, 801, 000	1, 361, 000	2, 178, 000
Consumption in United States, year ending August 31..... do.....	216, 000	237, 500	257, 500	244, 000	265, 000	296, 000
Consumption on continent of Europe, year ending December 31..... do.....	491, 300	520, 900	668, 500	702, 700	793, 400	593, 600

TABLE I.—Statistics of British cotton trade and manufactures, &c.—Continued.

	1840.	1841.	1842.	1843.	1844.	1845.
Stock in Great Britain, January 1, all kinds.....bales.....	355, 500	584, 000	619, 400	674, 400	920, 700	1, 036, 900
Stock in Great Britain, January 1, all kinds.....pounds.....	125, 800, 000	207, 000, 000	216, 700, 000	242, 300, 000	342, 000 000	390, 200, 000
Stock equal to supply for.....weeks.....	17	24	27	30	35	38
Stock in Great Britain, of American only.....bales.....	242, 300	403, 000	344, 600	373, 400	593, 200	654, 900
Import to Great Britain for the year, all kinds.....do.....	1, 599, 500	1, 344, 000	1, 392, 900	1, 744, 100	1, 681, 600	1, 855, 700
Import to Great Britain from the United States.....do.....	1, 237, 500	902, 500	1, 013, 400	1, 396, 800	1, 246, 900	1, 499, 600
Import to Great Britain from Brazil.....do.....	85, 300	94, 300	87, 100	98, 700	112, 900	110, 200
Import to Great Britain from Egypt.....do.....	35, 000	40, 700	19, 600	48, 800	66, 700	82, 000
Import to Great Britain from East Indies.....do.....	216, 400	273, 600	255, 500	182, 100	237, 600	155, 100
Import to Great Britain from West Indies, &c.....do.....	22, 300	32, 900	17, 300	17, 700	17, 500	8, 800
Weight of total import.....pounds.....	583, 400, 000	489, 900, 000	528, 500, 000	667, 000, 000	644, 400, 000	716, 300, 000
Weight, average, per bale.....do.....	365	365	379	382	383	386
Consumption in Great Britain, per year, all kinds.....bales.....	1, 251, 300	1, 192, 300	1, 160, 400	1, 367, 300	1, 428, 600	1, 574, 400
Consumption in Great Britain, per year, all kinds.....pounds.....	458, 300, 000	438, 100, 000	435, 106, 000	517, 800, 000	544, 000, 000	606, 600, 000
Actual average consumption per week, all kinds.....bales.....	24, 063	22, 929	22, 315	26, 294	27, 473	30, 277
Actual average consumption per week, American.....do.....	19, 592	17, 575	17, 178	21, 355	21, 654	24, 804
Average weekly consumption, bales, of 436 pounds each.....	20, 726	19, 749	19, 637	23, 390	24, 568	27, 363
Taken at Liverpool on speculation, year.....bales.....	229, 000	195, 800	259, 200	489, 700	478, 800	564, 000
Export from Great Britain, year.....do.....	119, 700	116, 300	134, 400	120, 200	136, 800	122, 800
Weight of yarn in Great Britain, January 1.....pounds.....	99, 000, 000	107, 500, 000	115, 700, 000	138, 500, 000	49, 200, 000	130, 100, 000
Average price of Upland, in Liverpool, per pound.....pence.....	6	6½	5¾	4¾	4¾	4¾
Average price of Suratts, in Liverpool, per pound.....do.....	4½	4½	4	3½	3½	3
Extreme price in Liverpool, New Orleans, "fair" to "good".....do.....	8½ a 9	8½ a 8½	8½ a 9	8 a 8½	7 a 8½	7 a 8
Crop grown and received at ports in United States.....bales.....	1, 635, 000	1, 684, 000	2, 379, 000	2, 030, 000	2, 395, 000	2, 101, 000
Consumption in United States year ending August 31.....do.....	315, 000	327, 000	295, 000	342, 500	367, 500	389, 000
Consumption on continent of Europe year ending December 31.....do.....	1, 045, 700	1, 092, 700	1, 039, 600	1, 082, 700	1, 071, 400	781, 600

COTTON.

TABLE I.—Statistics of British cotton trade and manufactures, &c.—Continued.

	1846.	1847.	1848.	1849.	1850.	1851.
Stock in Great Britain, January 1, all kinds.....bales.....	1, 195, 400	658, 800	511, 900	598, 600	659, 400	682, 400
Stock in Great Britain, January 1, all kinds.....pounds.....	453, 500, 000	245, 400, 000	184, 100, 000	220, 100, 000	240, 300, 000	231, 600, 000
Stock equal to supply for.....weeks.....	39	22	23	27	22	21
Stock in Great Britain, of American only.....bales.....	808, 100	397, 800	286, 200	348, 300	389, 900	343, 900
Import to Great Britain for the year, all kinds.....do.....	1, 134, 100	1, 232, 700	1, 740, 000	1, 905, 400	1, 749, 300	1, 903, 500
Import to Great Britain from United States.....do.....	932, 000	874, 100	1, 375, 400	1, 477, 700	1, 184, 200	1, 393, 700
Import to Great Britain from Brazil.....do.....	84, 000	110, 200	100, 200	163, 800	171, 800	108, 700
Import to Great Britain from Egypt.....do.....	59, 600	20, 700	29, 000	72, 600	79, 700	67, 400
Import to Great Britain from East Indies.....do.....	49, 500	222, 800	227, 500	182, 900	307, 900	323, 800
Import to Great Britain from West Indies, &c.....do.....	9, 000	4, 900	7, 900	9, 100	5, 700	4, 900
Weight of total import.....pounds.....	480, 500, 000	464, 900, 000	686, 400, 000	754, 300, 000	685, 600, 000	760, 100, 000
Weight, average, per bale.....	386	377	395	396	392	389
Consumption in Great Britain, per year, all kinds.....bales.....	1, 585, 900	1, 157, 800	1, 463, 600	1, 590, 400	1, 514, 500	1, 663, 400
Consumption in Great Britain, per year, all kinds.....pounds.....	614, 300, 000	441, 400, 000	576, 600, 000	629, 900, 000	588, 200, 000	658, 900, 000
Actual average consumption per week, all kinds.....bales.....	30, 498	22, 265	28, 146	30, 546	29, 125	31, 988
Actual average consumption per week, American.....do.....	24, 623	16, 683	22, 875	24, 688	20, 767	24, 325
Average weekly consumption, bales, of 426 pounds each.....	27, 703	19, 910	26, 764	28, 392	26, 525	29, 733
Taken at Liverpool on speculation, year.....bales.....	688, 600	286, 200	128, 800	874, 500	796, 100	263, 300
Export from Great Britain, year.....do.....	194, 200	221, 800	189, 600	254, 200	271, 800	208, 500
Weight of yarn in Great Britain, January 1.....pounds.....	131, 900, 000	157, 100, 000	116, 500, 000	127, 100, 000	144, 100, 000	120, 200, 000
Average price of Upland, in Liverpool, per pound.....pence.....	4½	6½	4½	5½	7½	5½
Average price of Surats, in Liverpool, per pound.....do.....	3½	4½	3½	3½	5½	4
Extreme prices, in Liverpool, New Orleans, "fair" to "good".....do.....	7 a 10	8 a 10	6½ a 8	6½ a 8½	9 a 10	7½ a 9½
Crop grown and received at ports in United States.....bales.....	1, 779, 000	2, 348, 000	2, 729, 000	2, 097, 000	2, 355, 000	3, 015, 000
Consumption in United States year ending August 31.....do.....	445, 000	428, 000	596, 000	602, 000	603, 000	466, 000
Consumption on continent of Europe year ending December 31.....do.....	755, 100	587, 200	695, 400	886, 600	936, 550	954, 600

TABLE I.—Statistics of British cotton trade and manufactures, &c.—(Continued).

	1852.	1853.	1854.	1855.	1856.	1857.
Stock in Great Britain, January 1, all kinds..... bales.....	594,000	807,400	817,500	706,300	566,500	492,700
Stock in Great Britain, January 1, all kinds..... pounds.....	225,900,000	300,900,000	306,900,000	271,200,000	208,900,000	196,200,000
Stock equal to supply for..... weeks.....	19	23	22	19	14	12
Stock in Great Britain, of American only..... bales.....	320,800	474,800	380,900	367,800	296,300	298,100
Import to Great Britain for the year, all kinds..... do.....	2,357,300	2,264,200	2,172,500	2,278,100	2,408,200	2,418,600
Import to Great Britain from United States..... do.....	1,780,100	1,532,000	1,665,800	1,623,600	1,758,300	1,482,000
Import to Great Britain from Brazil..... do.....	144,200	132,400	106,900	134,700	121,600	108,900
Import to Great Britain from Egypt..... do.....	189,900	105,400	81,100	114,800	113,900	75,900
Import to Great Britain from East Indies..... do.....	221,500	485,300	308,300	306,100	463,000	680,500
Import to Great Britain from West Indies, &c..... do.....	12,600	9,100	10,400	8,900	11,400	11,300
Weight of total import..... pounds.....	925,200,000	902,400,000	886,600,000	901,100,000	1,021,100,000	976,100,000
Weight, average, per bale..... do.....	392	398	408	396	414	404
Consumption in Great Britain per year, all kinds..... bales.....	1,861,100	1,903,900	1,967,100	2,101,000	2,183,300	2,031,400
Consumption in Great Britain per year, all kinds..... pounds.....	733,600,000	760,900,000	776,100,000	839,100,000	891,400,000	836,000,000
Actual average consumption per week, all kinds..... bales.....	35,790	36,613	37,829	40,403	41,987	39,065
Actual average consumption per week, American..... do.....	28,198	27,871	29,610	30,278	31,291	27,111
Average weekly consumption, bales, of 426 pounds each..... do.....	33,351	34,376	34,985	37,839	40,212	37,817
Taken at Liverpool on speculation, year..... bales.....	969,670	428,550	247,100	782,830	606,360	393,600
Export from Great Britain, year..... do.....	282,800	350,200	316,600	316,900	358,700	337,300
Weight of yarn in Great Britain, January 1..... pounds.....	127,100,000	124,500,000	129,200,000	124,500,000	165,500,000	181,500,000
Average price of Upland, in Liverpool, per pound..... pence.....	5½	5½	5½	5½	6	7½
Average price of Sarats, in Liverpool, per pound..... do.....	3½	3½	3½	3½	4½	5½
Extreme prices in Liverpool, New Orleans "fair" to "good"..... do.....	7½ a 8½	8 a 8½	8 a 8½	8 a 8½	7½ a 8½	8 a 10½
Crop grown and received at ports in United States..... bales.....	3,263,000	2,930,000	2,847,000	3,528,000	2,940,000	3,114,000
Consumption in United States, year ending August 31..... do.....	680,000	764,000	717,000	706,000	771,000	880,000
Consumption on continent of Europe, year ending December 31..... do.....	1,200,900	1,109,100	1,148,900	1,213,000	1,489,700	1,037,600

TABLE I.—Statistics of British cotton trade and manufactures, &c.—Continued.

	1858.	1859.	1860.	1861.	1862.	1863.
Stock in Great Britain, January 1, all kinds.....bales...	542,600	402,000	559,500	791,400	789,300	433,900
Stock in Great Britain, January 1, all kinds.....pounds...	211,700,000	189,900,000	230,200,000	336,600,000	316,800,000	183,200,000
Stock equal to supply for.....weeks.....	14	11	13	16	17	19
Stock in Great Britain, of American only.....bales.....	205,600	335,500	376,200	503,000	339,800	70,300
Import to Great Britain for the year, all kinds.....do.....	2,442,600	2,830,100	3,366,500	3,035,700	1,445,000	1,932,200
Import to Great Britain from United States.....do.....	1,863,300	2,086,300	2,580,700	1,841,000	71,750	131,900
Import to Great Britain from Brazil.....do.....	106,900	124,900	103,300	100,000	133,800	137,900
Import to Great Britain from Egypt.....do.....	105,600	101,400	109,500	97,800	131,750	204,300
Import to Great Britain from East Indies.....do.....	361,000	510,700	563,200	986,600	1,069,400	1,238,900
Import to Great Britain from West Indies, &c.....do.....	6,500	6,800	9,800	9,700	38,300	229,200
Weight of total import.....pounds.....	1,025,500,000	1,190,900,000	1,435,800,000	1,261,400,000	533,200,000	691,800,000
Weight, average, per bale.....do.....	420	421	424	415	369	364
Consumption in Great Britain per year, all kinds.....bales.....	2,174,500	2,296,700	2,522,200	2,363,600	1,185,500	1,303,500
Consumption in Great Britain per year, all kinds.....pounds.....	905,600,000	976,600,000	1,083,600,000	1,007,400,000	449,800,000	476,400,000
Actual average consumption per week, all kinds.....bales.....	41,817	44,167	48,523	45,454	22,794	25,067
Actual average consumption per week, American.....do.....	31,452	36,625	41,094	34,782	4,816	2,083
Average weekly consumption, bales, of 426 pounds each.....do.....	40,932	43,959	48,864	45,454	20,305	21,526
Taken at Liverpool on speculation, year.....bales.....	307,800	164,000	554,900	1,329,100	738,700	738,700
Export from Great Britain, year.....do.....	348,700	435,900	608,400	677,200	564,900	735,100
Weight of yarn in Great Britain, January 1.....pounds.....	176,800,000	200,000,000	192,300,000	197,300,000	293,800,000	152,400,000
Average price of Upland, in Liverpool, per pound.....pence.....	6½	6½	5½	Mid. Up., 8½	17½ (12 a 28½)	23½ (20½ a 29)
Average price of Surats, in Liverpool, per pound.....do.....	4½	4½	4½	Fair Surats, 6½	13 (8 a 18½)	19½ (16 a 24½)
Extreme prices in Liverpool, New Orleans "fair" to "good".....do.....	7½ a 9	8½ a 9	8½ a 9	Mid.N.O 6½ a 12	12½ a 29	21 a 29½
Crop grown and received at ports in United States.....bales.....	3,851,000	4,676,000	3,656,000	4,500,000	*Est. 1,600,000	*Est. 450,000
Consumption in United States, year ending August 31.....do.....	596,000	928,000	972,000	814,000	*Est. 370,000	*Est. 288,000
Consumption on continent of Europe, year ending December 31.....do.....	1,340,500	1,524,300	1,591,000	1,522,000	816,000	893,000

*Growth.—No account preserved of "receipts at ports" for the years 1861-62 to 1864-65, inclusive.

TABLE I.—Statistics of British cotton trade and manufactures, &c.—Continued.

	1864.	1865.	1866.	1867.	1868.
Stock in Great Britain, January 1, all kinds.....bales.....	327,500	575,700	405,500	581,600	554,800
Stock in Great Britain, January 1, all kinds.....pounds.....	137,700,000	226,000,000	182,600,000	235,100,000	221,700,000
Stock equal to supply for.....weeks.....	13	18	10	13	12
Stock in Great Britain, of American only.....bales.....	38,200	23,400	144,100	167,380	103,700
Import to Great Britain for the year, all kinds.....do.....	2,587,100	2,755,300	3,749,000	3,501,000	3,660,000
Import to Great Britain from United States.....do.....	197,800	461,900	1,162,700	1,225,700	1,269,000
Import to Great Britain from Brazil.....do.....	212,200	340,300	407,600	437,200	636,900
Import to Great Britain from Egypt.....do.....	257,100	333,600	167,500	181,200	188,700
Import to Great Britain from East Indies.....do.....	1,389,500	1,266,500	1,847,800	1,508,800	1,452,000
Import to Great Britain from West Indies, &c.....do.....	520,500	353,000	163,400	148,100	113,400
Weight of total import.....pounds.....	896,800,000	965,700,000	1,357,000,000	1,275,200,000	1,296,958,000
Weight, average, per bale.....do.....	347	355	362	364	354
Consumption in Great Britain per year, all kinds.....bales.....	1,606,400	2,034,700	2,436,400	2,512,500	2,801,940
Consumption in Great Britain per year, all kinds.....pounds.....	561,200,000	718,700,000	890,700,000	954,500,000	985,475,700
Actual average consumption per week, all kinds.....bales.....	30,892	39,129	46,853	48,317	53,880
Actual average consumption per week, American.....do.....	3,052	5,405	17,912	20,413	21,390
Average weekly consumption, bales, of 426 pounds each.....do.....	25,357	32,473	40,945	43,128	44,471
Taken at Liverpool on speculation, year.....bales.....	584,800	879,600	438,000	201,750	628,000
Export from Great Britain, year.....do.....	732,480	890,850	1,136,560	1,015,040	915,120
Weight of yarn in Great Britain, January 1.....pounds.....	72,200,000	40,800,000	32,900,000	37,400,000	38,700,000
Average price of middling Upland, in Liverpool, per pound.....pence.....	27½ (21 a 30½)	19 (13½ a 26½)	15½ (12½ a 20½)	11 (7 a 15½)	10½ (7½ a 12½)
Average price of fair Surats, in Liverpool, per pound.....do.....	21 (14 a 24)	14½ (10 a 19½)	12 (8½ a 17½)	8½ (4 a 9)	8 (5½ a 10½)
Extreme prices in Liverpool, middling New Orleans.....do.....	22 a 31½	13½ a 25½	12½ a 21	7½ a 15½	7½ a 12½
Crop grown and received at ports in United States.....bales.....	Est. *300,000	Est. 12,154,000	Est. 12,130,000	Est. 2,431,000	.....
Consumption in United States, year ending August 31.....do.....	Est. 220,000	Est. 345,000	Est. 735,000	Est. 850,000	968,165
Consumption on continent of Europe, year ending December 31.....do.....	Est. 954,000	Est. 1,265,000	Est. 1,799,800	Est. 1,738,000	2,003,000

* Growth.—No account preserved of "receipts at ports" for the years 1861-62 to 1864-65, inclusive.

† Estimated growth of 1865 only 550,000 bales; the other receipts being of growth of previous years, and termed "old cotton."

‡ The receipts at ports, 1866-67, included, probably, 400,000 to 500,000 bales of "old cotton."

This table of the statistics of British cotton trade and manufacture, and two others of the more extensive and valuable tables published herewith, are taken from the publications of the "National Association of Cotton Manufacturers and Planters." They had been compiled by the writer of this report, for the use of that association, from the best authorities, chiefly from the statistics of the cotton trade published by Messrs. George Holt & Co., of Liverpool.

IMPORTATION OF COTTON WOOL.

TABLE II.—*Estimated yearly average importation of cotton wool into Great Britain at various periods prior to 1816, (in pounds.)*

1701 a 1705	1,200,000	1801.....	56,000,000	1809.....	92,800,000
1716 a 1720	2,200,000	1802.....	60,300,000	1810.....	136,500,000
1771 a 1775	4,800,000	1803.....	53,800,000	1811.....	91,600,000
1776 a 1780	6,700,000	1804.....	61,900,000	1812.....	63,000,000
1781 a 1785	10,900,000	1805.....	59,700,000	1813.....	51,000,000
1786 a 1790	25,400,000	1806.....	58,200,000	1814.....	60,100,000
1791 a 1795	26,700,000	1807.....	74,900,000	1815.....	99,300,000
1796 a 1800	37,300,000	1808.....	43,600,000		

SOURCES OF SUPPLY OF COTTON.

TABLE III.—*Sources of the cotton supply of Great Britain for ten years, 1806 to 1815, inclusive, (packages.)*

	United States.	Brazil.	East Indies.	W. Indies, &c.	Total.
1806.....	124,939	51,034	7,787	77,978	261,738
1807.....	171,267	18,981	11,409	81,010	282,667
1808.....	37,672	50,442	12,512	67,512	168,138
1809.....	160,180	140,927	35,764	103,511	440,382
1810.....	246,759	142,286	79,382	92,186	560,613
1811.....	128,192	118,514	14,646	64,879	326,231
1812.....	95,331	98,704	2,607	64,563	261,205
1813.....	37,720	137,168	1,429	73,219	249,536
1814.....	48,853	150,930	13,048	74,800	287,631
1815.....	203,051	91,055	22,357	52,840	369,303
Total	1,253,964	1,000,041	200,941	752,498	3,207,444

COTTON MANUFACTURE AND TRADE OF GREAT BRITAIN.

TABLE IV.—A condensed exhibit of the cotton manufacture and trade of Great Britain, 33 years.

	Average per year.				1855.	1856.
	5 years, 1840-44.					
	5 years, 1835-39.	5 years, 1845-49.	5 years, 1850-54.			
Raw cotton actually consumed.....pounds..	371,475,000	509,902,000	765,900,000	839,200,000	856,700,000	
Cost of same in dollars, \$4 80 per £ sterling.....	63,559,672	56,641,920	83,981,280	94,175,462	106,280,075	
Exported goods and yarns.....pounds..	212,176,715	284,636,665	337,065,453	413,933,262	528,929,766	
Home consumption, goods and yarns.....pounds..	116,047,465	166,627,039	174,384,848	210,788,222	227,250,334	
Value of goods and yarns produced.....dollars..	183,604,015	204,308,892	202,132,666	245,804,910	262,735,295	
Proportion of value of raw cotton used to the value of goods and yarns made from it.....	100 a 305	100 a 362	100 a 342	100 a 293	100 a 238	
Amount of difference or value added by manufacturing.....dollars..	130,051,343	147,566,972	143,030,746	161,823,620	167,739,215	
	1857.	1858.	1859.	1860.	1861.	*1862.
Raw cotton actually consumed.....pounds..	825,027,000	907,836,000	977,633,000	1,079,321,000	1,005,477,000	449,821,000
Cost of same in dollars, \$4 80 per £ sterling.....	119,040,000	119,092,800	132,369,600	138,768,000	154,484,000	128,323,200
Exported goods and yarns.....pounds..	583,110,000	652,663,000	693,072,000	740,113,000	674,132,000	412,684,000
Home consumption, goods and yarns.....pounds..	156,000,000	158,000,000	172,000,000	173,000,000	174,000,000	102,000,000
Value of goods and yarns produced.....dollars..	287,222,400	312,803,200	346,670,400	386,822,400	356,788,800	305,084,800
Proportion of value of raw cotton used to the value of goods and yarns made from it.....	100 a 241	100 a 254	100 a 262	100 a 279	100 a 231	100 a 160
Amount of difference or value added by manufacturing.....dollars..	168,182,450	183,710,400	214,300,300	248,054,400	202,204,800	76,761,600

* In 1862, raw cotton consumed, only..... 449,821,000 pounds.
 Deduct the waste in use (larger than usual, because of low quality of cotton supplied)..... 76,469,000 pounds.
 Which would leave in goods and yarns only..... 373,352,000 pounds.
 Being an excess over the total production of that year of 141,332,000 pounds which was supplied from the surplus production of previous years held over.

Yet the export of goods and yarns was..... 412,684,000 pounds.
 And home consumption of goods and yarns was..... 102,000,000 pounds.
 Total..... 514,684,000 pounds.

APPENDIX E.
 EXPORTS OF COTTON GOODS FROM NEW YORK.
 Table of exports of domestic (plain) cotton goods from New York.

NOTE.—This table was prepared for this report by the Statistician of the New York Journal of Commerce. It exhibits in detail only the exports from the port of New York and the aggregate each year of the exports from Boston. These together comprise nearly the whole export of these goods from the United States. It will be observed that only plain goods, such as drills, sheetings, &c., are included in the table, excluding all colored, printed, figured, or striped goods.

Destination.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
	Packages.	Packages.	Packages.	Packages.	Packages.	Packages.	Packages.	Packages.	Packages.	Packages.	Packages.
Mexico	1,920	2,463	820	1,479	8,765	1,713	2,972	4,897	2,084	2,446	2,475
Dutch West Indies.....	359	289	352	321	292	306	337	151	581	317	531
Swedish West Indies.....	51	16	24	21	3	3	6	10	.....	4	.....
Danish West Indies.....	116	56	261	70	82	147	284	427	564	691	696
British West Indies.....	19	131	131	131	89	903	499	880	297	219	227
Spanish West Indies.....	97	129	132	77	13	69	1,143	151	223	358	366
St. Domingo.....	324	1,208	1,895	736	292	208	411	228	591	262	977
British North America.....	4	47	195	108	56	54	16	35	42	14	18
New Grenada.....	163	206	153	643	396	112	131	949	560	627	967
Brazil	1,783	1,478	3,178	3,281	1,194	2,682	2,764	3,756	2,751	4,466	3,637
Venezuela.....	548	990	865	462	988	1,094	335	268	523	919	919
Argentine Republic.....	957	249	86	1,475	250	1,445	468	590	90	328	903
Cisplatine Republic.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Central America.....	354	607	1,218	653	713	43	495	190	101	200	55
West coast South America.....	2,603	3,426	1,395	2,743	1,642	809	1,152	158	3,710	4,195	6,606
Honduras.....	859	101	150	246	179	276	401	160	170	436	259
Africa.....	475	538	1,772	3,405	1,239	1,007	1,324	1,874	1,414	1,200	323
Australia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
East Indies and China.....	13,143	20,091	27,992	38,413	18,889	12,436	11,929	17,674	12,676	43,419	53,662
All others.....	231	130	31	25	82	550	251	267	203	180	1,793
Total packages shipped from New York.....	24,006	32,155	40,560	54,692	34,828	24,980	27,585	34,782	26,653	59,994	74,549
Add packages shipped from Boston to all ports.....	41,344	34,307	46,589	59,395	54,729	35,428	34,093	37,880	26,000	29,875	31,661
Total packages from both ports.....	65,350	66,462	87,149	113,987	89,557	59,708	61,678	72,662	52,653	89,869	106,210

Export of domestic (plain) cotton goods from New York—Continued.

COTTON.

Destination.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.
	Packages.	Packages.	Packages.	Packages.	Packages.	Packages.	Packages.	Packages.	Packages.
Mexico.....	4,873	2,766	2,427	1,886	849	112	282	1,090	1,837
Dutch West Indies.....	664	569	84	9	3	.....	42	133	157
Swedish West Indies.....	47	38	.....	.....	.....	.....	.....	.....	.....
Danish West Indies.....	522	522	316	29	1	8	16	33	87
British West Indies.....	497	537	165	149	24	9	58	254	399
Spanish West Indies.....	193	374	140	66	86	30	22	292	140
St. Domingo.....	2,169	1,257	484	63	12	.....	9	244	69
British North America.....	10	60	23	16	.....	.....	3	.....	14
New Grenada.....	1,381	2,005	609	356	83	11	423	575	253
Brazil.....	8,103	5,400	953	86	4	.....	261	2,343	1,716
Venezuela.....	1,358	1,421	141	32	9	4	35	116	303
Argentine Republic.....	1,111	430	145	13	2	17	77	551	529
Cisplatine Republic.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Central America.....	53	23	1	1	6	.....	.....	3	3
West coast of South America.....	13,291	5,299	1	.....	2	.....	293	1,024	207
Honduras.....	389	245	12	5	4	.....	5	47	121
Africa.....	1,466	876	49	11	24	.....	807	2,016	2,700
Australia.....	353	180	3	.....	.....	.....	.....	.....	.....
East Indies and China.....	47,735	31,911	187	5	7	.....	6,972	4,558	15,677
All others.....	1,793	1,823	47	30	8	.....	53	197	1,715
Total packages shipped from New York.....	86,318	53,736	5,787	2,776	1,192	194	9,416	13,875	26,048
Add packages shipped from Boston.....	33,588	18,146	4,238	421	264	308	6,802	9,031	11,422
Total packages from both ports.....	119,906	73,882	10,025	3,197	1,456	502	16,218	22,906	37,470

APPENDIX F.

COTTON SPINNING IN THE UNITED STATES.

[La filature du coton des Etats Unis.]

“Après l’Angleterre viennent, comme importance dans l’industrie du coton, les Etats Unis, qui comptent aujourd’hui près de 8,000,000 de broches.

Les renseignements statistiques que nous avons pu nous procurer et tirer des publications du Congrès sont moins précis que ceux que nous possédons sur les autres pays.

La filature du coton date, en Amérique, de 1824 seulement; Lowell, le Manchester Américain, possède des établissements très-importants qui, il y a quinze ans, ne comptaient encore que 5,500,000 broches; mais, depuis la reconstitution de l’Union et l’élévation des tarifs protecteurs, le nombre des filatures tend à s’accroître rapidement, et avant peu les Etats Unis auront plus de 8,000,000 de broches.

D’après des chiffres officiels, 100,000,000 de kilogrammes de coton étaient, sur la récolte, conservés chaque année en Amérique, alors qu’il n’y avait à alimenter que 5,500,000 broches; aujourd’hui les Américains doivent donc en conserver 145,000,000, qui, convertis en fils de numéros généralement assez gros, suffisent à leur consommation et leur permettent même une exportation considérable dans l’Amérique du Sud; ils n’ont donc à tirer de l’Angleterre que les numéros plus fins.” (*From the Reports du Jury International, Exposition Universelle, de 1867.*)

APPENDIX G.

EXPORTS OF COTTON FROM THE UNITED STATES.

Table of exports of American cotton from the ports of the United States to Sweden and Norway, Russia and Spain, for the years ending 30th of June, from 1849 to 1867, inclusive, giving pounds and value. (Compiled from official records for Mr. Nourse.)

Years.	SWEDEN AND NORWAY.		RUSSIA.		SPAIN.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
1849	7,030,305	\$482,474	10,650,631	\$852,198	23,285,804	\$1,527,720
1850	3,624,123	412,132	4,338,705	540,422	27,676,266	3,170,086
1851	5,160,974	571,616	10,098,448	1,297,164	34,272,625	4,387,262
1852	5,939,025	510,103	10,475,168	962,346	29,301,928	2,262,195
1853	6,099,517	613,857	21,286,563	2,254,345	36,851,042	3,932,095
1854	9,212,710	898,926	2,914,954	301,293	25,024,074	3,683,045
1855	8,428,437	741,278	448,897	48,647	33,071,795	3,320,134
1856	17,289,637	1,652,049	4,643,384	514,161	58,479,179	5,841,517
1857	10,038,095	1,249,042	31,933,534	4,267,234	45,557,067	6,165,751
1858	4,057,593	458,776	32,110,204	4,122,996	39,630,463	4,862,777
1859	11,032,609	1,268,302	43,619,263	5,432,422	60,522,742	7,222,908
1860	11,662,859	1,306,071	21,698,054	2,644,514	44,021,833	5,268,397
1861	582,831	73,822	4,251,273	543,432	11,155,049	1,262,136
1862					582,747	98,411
1863-'65						
1866	323,380	125,845	2,685,884	1,065,803	8,815,730	3,802,040
1867			5,089,784	1,553,995	11,034,094	3,110,838

The above table was compiled for this work by the careful and accurate statistician of the New York Journal of Commerce.

APPENDIX H.

COTTON-GROWING IN INDIA AND OTHER COUNTRIES—REPORT OF THE PROCEEDINGS OF THE MANCHESTER COTTON SUPPLY ASSOCIATION.

[From the London Times of December 26, 1868.]

At the usual meeting of the executive committee, held Tuesday, December 22, a letter was read from Dargeeling, Bengal Presidency, stating that the views which the writer expressed when in England six years ago, and which were founded upon personal experience during 12 years' residence in various parts of India, have since been fully confirmed, and that he is more than ever convinced of the possibility of securing a successful cotton field in India. New Orleans and Egyptian seed can be advantageously cultivated in that portion of the Bengal Presidency with which he is connected, as he has satisfactorily proved; and, he has no doubt, also in the neighboring districts of Doar Teraies, which contains hundreds of thousands of rich, unreclaimed acres, similar in soil and subsoil, as shown by chemical analysis, to the cotton soils of Georgia and Alabama, and capable of yielding large future supplies of fine cotton. The natives, however, are so averse to change their rude agricultural system, and are so firmly attached to their patriarchal method of husbandry, that it is extremely difficult to persuade them to enhance the value of their crops by means of superior seed and a better mode of cultivation. Moreover, the common country churka is not well adapted for cleaning New Orleans and Egyptian cotton, and they are therefore naturally disinclined to cultivate crops from foreign seeds, the produce of which, unginned, is actually of less local value than the crops from inferior indigenous seed. It was therefore resolved to send out, at the expense of the association, some gins to meet the exigency, as well as a fresh supply of New Orleans and Egyptian seed. A letter was received from Broach, stating that a prize list of the Broach exhibition, which was to open on the 22d of December, has been forwarded, and, consequently, that the medals and money offered by the association will be immediately awarded. A letter was read from the Cape of Good Hope, acknowledging a grant made by the association of seed, which has been publicly offered for distribution to all persons willing to give cotton cultivation a fair trial in the colony. The only article of export (wool) being very low in price in the home market, it has become necessary to try some other industry, and it is expected that self-interest will induce many to grow cotton largely, though the people are somewhat apathetic. His excellency the governor has taken an interest in the subject, and it is hoped that government influence will have a beneficial effect upon the natives. All that is wanted to make the colony a valuable cotton-producing country is a little enterprise, and some capital judiciously expended. A report, forwarded by the foreign office, upon the cultivation of cotton at Guayana was received from Her Majesty's chargé d'affaires

at Caracas, and a consular return from Rio Grande do Sul. In Venezuelan Guayana, want of agricultural laborers, owing to a scanty population and the discovery of rich gold fields, are, and will continue to be, the only hindrances to the extensive cultivation of cotton in this state. Venezuelan Guayana offers to the cotton planter all the advantages that could be desired—an immense territory traversed by navigable rivers and streams, which facilitate the means of transport, abundance of excellent pasturage and agricultural lands, and well-distributed seasons for sowing and picking. Ciudad Bolivar, the capital of the state, is the only port on the Orinoco for embarkation, and every facility exists for storing and shipping produce. The local tax on cotton amounts to 100 cents, and the export duty to 80 cents per 100 pounds. The cotton shipped from this port to Liverpool, New York, Hamburg, and Bremen, is brought from the adjacent states, but principally from the state of Zamoza, (Varinas.) The cotton exported during the year to the above-mentioned ports amounts to 225,400 pounds, and the stock on hand to 1,024 bales of 100 pounds. In the province of Rio Grand do Sul cotton cultivation has proved unsuccessful. Though the plant was not uncommon in many gardens and fields, where it grew spontaneously, no cotton previous to the American war was raised for export. In the year 1864, its cultivation on an extended scale was commenced by Mr. John Proudfoot; he sent to Scotland for laborers, and introduced the most modern and approved agricultural implements, as well as quantities of foreign or exotic seeds. This seed he distributed gratuitously to every person who would accept it, and he agreed to purchase, at remunerative rates, all the cotton they could raise. His exertions and outlay were not, however, successful; the laborers he brought out were novices in the science of cotton cultivation, equally with the natives of the country. It was an experiment begun by people having no practical experience; various mistakes were made in consequence, and to this may be attributed, in a great measure, the failure of cotton cultivation in this province. In the German colonies very little cotton is now planted; as long as other agricultural produce obtains such high prices as hitherto, cotton will be neglected as an article of export. In these colonies a good deal of flax is produced and spun. Many of the colonists wear home-made clothing. The climate is considered better adapted for flax than for cotton.

APPENDIX I.

NOTICE OF ERRONEOUS COTTON STATISTICS.

The following extract is from DeBow's "Industrial Resources of the Southern and Western States, vol. 1, p. 216:

"It has already been stated in a former part of this work that Massachusetts is the principal manufacturing State in this country. An act

was passed by the senate and house of representatives of that State, in 1837, for the purpose of obtaining 'statistical information in relation to certain branches of industry within the commonwealth.' The following table is copied from the report of the secretary of the commonwealth, which he prepared from the returns of the assessors in the various towns and cities in the State:

Statement of the cotton manufactures in twelve of the States in 1831.

States.	Capital.	Number of spindles.	Yards of cloth produced y'rly	Pounds cloth produced y'rly	Pounds cotton consumed y'rly
Maine.....	\$765,000	6,500	1,750,000	525,000	588,500
New Hampshire.....	5,300,000	113,776	29,060,500	7,255,060	7,845,000
Vermont.....	295,500	12,392	2,238,400	574,500	760,000
Massachusetts.....	12,891,000	339,777	79,231,000	21,301,062	24,871,981
Rhode Island.....	6,262,340	235,753	31,121,681	9,271,481	10,414,578
Connecticut.....	2,825,000	115,528	20,055,500	5,612,000	6,777,209
New York.....	3,669,500	157,316	21,010,910	5,297,713	7,661,670
New Jersey.....	2,027,644	62,979	5,133,776	1,877,418	5,832,204
Pennsylvania.....	3,758,500	120,810	21,332,467	4,207,192	7,111,174
Delaware.....	384,000	24,806	5,203,746	1,201,500	1,435,000
Maryland.....	2,144,000	47,222	7,649,000	2,224,000	3,008,000
Virginia.....	290,000	9,844	675,000	168,000	1,152,000
Total.....	40,612,984	1,246,703	230,461,990	59,514,926	77,457,316

"The preceding table shows the extent of the cotton manufacture in the United States in 1831; since that time there has been a considerable increase."

It will be observed that the foregoing extract from DeBow purports to give the statistics of the cotton manufactures in 12 States in 1831, from the returns made by the assessors in the various towns and cities in the State of Massachusetts in obedience to a law passed in 1837.

The apparent incongruity may have occurred by a mistake in arrangement. But there are errors in the table which cannot be excused, and indicate that it was made up from random estimates without proper data.

The present average number of yarn is $27\frac{1}{2}$; in 1831 it was not probably finer than No. 18. The present average consumption of cotton per spindle is 65 pounds; and in the southern States, on an average of about No. 13 yarn, it is 138 pounds per spindle each year; the number of spindles employed and pounds of cotton consumed in 1831, according to the table, allow only $62\frac{1}{2}$ pounds per spindle, or less than the present rate; spinning, 50 per cent. finer.

The difference between the pounds of cotton consumed and the pounds of cloth and yarn produced should be the "waste" in working. With medium grades of cotton, producing medium goods, the waste now would be about 16 per cent. In 1831 it was probably 20 per cent. In Mr. De Bow's table the waste in 1831 was shown to be, in New Hampshire, $7\frac{1}{2}$ per cent.; in Maine, 10 per cent.; in New York, 30 per cent.; in Pennsyl-

vania, 40 per cent.; in New Jersey, 67 per cent.; in Virginia, 85 per cent. As only pounds of cloth are stated in the table for production, some allowances should be made for yarn produced and sold unwoven; but this would furnish a correction only in the cases of excessive waste, for it would aggravate the error when the waste is too small already; and then Mr. De Bow appends, below the table quoted, another one, in which he gives the number of looms employed in 1831 as 33,433, equal to one for each 37 spindles, quite enough to weave all the yarn produced, even if the waste was less.

APPENDIX K.

LIST OF PRINCIPAL EXHIBITORS OF COTTON AND OF THE AWARDS.

ENGLAND—MANCHESTER COTTON SUPPLY ASSOCIATION.

The collection of samples of cotton from the localities mentioned in the list given on page 9, was made and exhibited by the Manchester Cotton Supply Association. It comprised samples from most of the cotton-producing countries, and from nearly all of the sources mentioned in the catalogue appended to the report of the International Jury.—(See Appendix L.)

EXHIBITORS FROM THE UNITED STATES.

- ALABAMA, STATE OF.—Samples of cotton. Silver medal and honorable mention.
- HODGSON, J., Alabama.
- HUMPHRIES, JOHN C., parish of Rapides, Louisiana.—Samples of cotton. Bronze medal.
- ILLINOIS CENTRAL RAILROAD COMPANY.—Hemp, flax, cotton, and tobacco. Silver medal.
- JOHNSON, C. G., New Orleans, Louisiana.—Specimen of cotton; in the Louisiana cottage.
- MAGINNIS, A. A., New Orleans, Louisiana.—Cotton seeds.
- MEYER, VICTOR, parish of Concordia, Louisiana.—Sample of cotton. Gold medal.
- MISSOURI, STATE OF.—Cotton, hemp, cashmere wool.
- OGLESBY, J. H., New Orleans, Louisiana.
- TOWNSEND, J., Edisto Island, South Carolina.—Specimen of fine sea island cotton.
- TRAGER, LOUIS, Black Hawk Point, Louisiana.—Samples of cotton. Gold medal.
- WELLS, J. M., parish of Rapides, Louisiana.

EXHIBITORS FROM OTHER COUNTRIES.

We have not space to name in detail the exhibitors from other countries, who were very numerous. There were 20 from Greece; 35 from Italy; 50 from Turkey and other parts of the Ottoman Empire; 60 from Algeria, (in which Kabyle and Arab names mingle with French names;) and goodly numbers from Egypt, Brazil, British India, China, Hawaii, the South American Republics, the colonies of Spain, Portugal, England, France, and other countries in Europe; from nearly all the South Sea islands, Polynesia, the islands of the Indian ocean, and all the coasts of Africa, Asia, &c.

Contrasted with all these, the samples from the United States were insignificant in number and quality, as they were unworthy to represent the principal source of the commercial cotton supply of the world. It must, therefore, have been rather of courtesy than of right, rather of prior knowledge of the true position of our country in the production of cotton, than of evidences presented at the Exposition, that such liberal recognition of exhibitors from the United States was made in the distribution of *récompenses*.

LIST OF AWARDS.

[Exhibitors of long staple cotton marked.*]

GRAND PRIZE.—To Algeria, Brazil, Egypt, Ottoman Empire, British India, Italy.

GOLD MEDALS.—To L. Trager, Black Hawk Point, Louisiana, United States; Victor Meyer, Concordia, Louisiana, United States; Masquelia fils et Cie., *Saint Denis du Sig., Algeria; Towns, *Brisbane, Queensland, Australia.

SILVER MEDALS.—To Herzog, *Oran, (province of) Algeria; L. Dacosta,* Rio Grande du Sud., Brazil; The State of Alabama, United States; Sideri, Naples, Italy.

BRONZE MEDALS.—To *Davis, Queensland, Australia; to *Dufourg, Biskra, Algeria; to *Fleury, Hennaya, Algeria; to *Ferré, Oran, Algeria; to *Soarez & Cie, Tahiti, French colonies; to *Winter, Guiana, English colonies; to Davies, Cumana, Venezuela; to J. C. Humphries, Louisiana, United States; to Dodero, Barcelona, Spain; to The Baroness Camorata, Scorazzo, Italy; to Basetto Fisola, Venice, Italy; to Senoval, Porto Rico, Spanish Antilles; to Cabrera, Porto Rico, Spanish Antilles; to Ali Pacha, —, Egypt; to Pic ainé, Guadaloupe, French colonies; to John Proudfoot, Rio Grande, Brazil.

HONORABLE MENTION.—To *Winter, Guiana, English colonies; to *Bellecôte, Boue, Algeria; to *Danté, Oran, Algeria; to *Goulard, Constantine, Algeria; to *Guieysse, Algiers, Algeria; to *Jacques, Elezane, Algeria; to *Laquiere, Boue, Algeria; to *Lescure, Oran, Algeria; to *Vallier, Lac Halloula, Algeria; to *Viret, Dellys, Algeria; to *Cordier, La Rassauta, Algeria; to *Chuffart, Oued-el Haleugh, Algeria; to *Goussons, Oued-

el-Haleugh, Algeria ; to *Sebourt, Saint-Denis-du-Sig., Algeria ; to *Sœurs Saint Bernard, Saint-Denis-du-Sig, Algeria ; to *Hallaire, Italy ; to *Barbolace, Calabria ; to *F. L. Davis, Venezuela ; to *Panton, Queensland, English colonies ; to *Orr, Queensland, English colonies ; to *P. F. Fairburn, British Guiana, English colonies ; to *Leroux, Prévile, Martinique, French colonies ; to *Albert, Prévile, Martinique, French colonies ; to *Bonneville, Guadaloupe, French colonies ; to *Bonnet, Guadaloupe, French colonies ; to *Monègre, Guadaloupe, French colonies ; to *Heilmann, Senegal, French colonies ; to *N'Gour Coumba N'Dar, Senegal, French colonies ; to *John Gregor, New South Wales, English colonies ; to J. L. Michael, New South Wales, English colonies ; to Ensworth, New South Wales, English colonies ; to O. B. Zanellia, New South Wales, English colonies ; to Sub-Commission of Lecco, Italy ; to Jourdon, Naples, Italy ; to Société Cipontine, (Bro's Menzini,) Italy ; to Don Emmanuel Lisi, Italy ; to Grossi, Italy ; to Gallozzi Frères, Naples, Italy ; to Garnier, Duvivier, Algeria ; to State of Alabama, United States ; to Achmet Bey, Salonica, Turkey ; to Adolphe Runge, Porto Rico, Brazil ; to Almeida, Mossamedes, Portuguese colonies ; to Botelho, Novo Rotundo, Portuguese colonies ; to Alvez, Mozambique, Portuguese colonies ; to Xavier, Pangein, Portuguese colonies ; to Count d'Audlau, Martinique, French colonies ; to Abbé Granger, Guadaloupe, French colonies ; to Beauperthuy, Guadaloupe, French colonies ; to Goyriena, French Guiana, French colonies ; to Arda d'Elteil, Senegal, French colonies ; to Fritz Kocchlin, Senegal, French colonies ; to Touaris Frères, Réunion, French colonies ; to Lopez de Oliveira, Saint Paul, Brazil ; to Mavanhas, Brazil ; to José Barboza, Brazil ; to Le Maréchal del Duero, Spain ; to the Viceroy, Egypt ; to François, Tournabene, Catania, Italy ; to Jardin Botanique de Naples, Italy ; to Hortolès fils, Montpellier, France ; to Lacan, Calvi, France.

APPENDIX L.

REPORT UPON THE PRODUCTION OF COTTON.

BY M. ENGEL DOLLFUS, MEMBER OF THE INTERNATIONAL JURY.

[Translated from Volume VI of the "Rapports du Jury International." ¹]

I. PRODUCTION AND CONSUMPTION OF COTTON BEFORE AND AFTER THE WAR OF THE UNITED STATES.

It would be difficult to find in the annals of industry a situation so threatening and perilous as that which the prospect of a prolonged war in the United States offered to industrial Europe in the year 1860.

The fate of the most important of our industries was regarded with increasing anxiety at the thought of seeing the almost exclusive sources of cotton supply exhausted; especially in England, where the manufacture of cotton employs directly 400,000 to 500,000 persons in 2,715 establishments, containing 28,000,000 spindles and 368,000 looms, the danger causing preoccupations of the gravest nature to agitate the public mind.

Thought had been given many times to the terrible contingency of a scarcity of this raw material. The continued extension of its consumption; the possibility of a conflict with the United States; the consciousness of a dependence so exclusive, which might chance at any moment to give to foreign policy a direction hardly conformable to the demands of national self-respect; and finally a very active desire to promote colonial production, and particularly that of India, had, since 1858, led England to study the means of escaping a monopoly which might become a real danger to that country.

These sentiments had found their most characteristic expression in the formation of an association for the development of the cultivation of cotton,² (*Cotton Supply Association of Manchester*), a vigilant forerunner,

¹ It is the cause of much regret that by a series of misfortunes I was deprived of the volume (sixième) of the "Rapports du Jury International de l'Exposition Universelle de 1867, à Paris," which contained the jury report upon the production of cotton, while writing the report of our commission upon that topic, and did not see it until my work had gone to press. This fact will explain, what otherwise might seem discourteous, the absence in that work of all reference to the interesting report by M. Dollfus.

For the satisfaction of our readers, especially the American planters, a translation of the jury report, with its statistics, is here given almost entire.—B. F. N.

² The Cotton Supply Association was founded in 1856. Its object, to use its own expression, is to develop as soon as possible, and by all sorts of means, the fitness of countries other than the United States to produce cotton, and it has energetically performed this duty. A voluntary subscription to meet its expenses was raised for 1866-'67 to 42,000 francs, which amount was expended in the purchase of seeds and gins for distribution in the distant countries; in the printing of information and advice to planters; in the getting-up of petitions to obtain or hasten the construction of means of communication, and other great works in India; and in the expenses of administration and correspondence.

An idea can be formed of the extent of the relations of the association by the figures of

possessing in the highest degree the energy, the capacity, and the activity of association, produced spontaneously in England, when great difficulties are to be conquered; but until 1860 they had not obtained "effective" results, because public opinion was but partially interested.

It is difficult, indeed, to make foresight concur with the logic of economical laws, when applied to prediction of events contingent, or at least to the accidental. The most justifiable fears, the most urgent appeals had to remain unheeded in view of the moderate cost of cotton from the United States; based upon excellence in qualities, advantage of proximity, and the habits of daily exchange mutually favorable.

The crises of 1861-'65 found England and the continent unprepared; the markets, it is true, held over large stocks from the two most productive cotton seasons which had ever occurred,¹ but were without visible resources for replacing them.

The first efforts which had been made for the development of cotton culture could not be fruitful in important results. Very rarely had the stocks in the ports been more considerable,² and the uncertainties relative to the duration of the strife, the inexperience in the matters of culture, the habit of dependence upon another routine, and the very natural idea that the most favorable lands for cotton-growing had been already occupied, could not fail to be the attendants of this beginning.

Changes of crops and methods of culture are accomplished very slowly and with caution; they are consequently unfit to satisfy new and sudden wants. Besides, the culture of cotton is one of the most delicate; there are few plants which have so many enemies; there are few which depend so much upon the experience of the planter, the climate, and the nature of the soil. What more natural than the hesitations which marked the years 1861 and 1862?

The years 1863 and 1864 witnessed more commendable and more decisive efforts everywhere; industry, in spite of its distress, found capital available for the promotion of cotton-planting and for advances to planters. Companies were formed, but these attempts, very limited in view of the object sought to be obtained, and impeded by divers circumstances, attained nowhere a magnitude to compensate for, or neutralize the effects of, the enormous deficiency which existed in the supply from

1,140 letters and appeals for information received in 1867, from the following countries: India, Java, New South Wales, Queensland, Feeje, Friendly islands, Navigators' islands, Hayti, Jamaica, Montserrat, Tobago, and other parts of the West Indies; Brazil, Argentine Republic, Peru, and other parts of South and Central America; English Caffraria, Cape Coast, Algeria, Syria, Egypt, Bursa, Belgrade, Beyroot, Constantinople, Smyrna, Cyprus, Latakia, Bagdad, Scutari, Jaffa, *Caiffa*, Greece, Ionian islands, Russia, Trieste, Vienna, Genoa, Turin, Naples, Terranova; that is to say, its relations embrace the whole world

¹ Crop of the United States, 1859-'60..... 4,662,000 bales.

Crop of the United States, 1860-'61..... 3,656,000 bales.

² Stocks in the ports:

End of the season, { Ports in America, September 1, 1859-'60..... 1,472,000 bales.
 { Ports in Europe, October 1, 1860-'61..... 1,102,000 bales.

the United States. We then saw the prices of cotton, after a short period of hesitation, rise successively under the impulse of immense speculations, since dearly expiated, and attain their highest range in October, 1863, at the price of 29½ pence (or 3.09 f.¹) per pound for middling New Orleans at Liverpool, and 3.85 f. for bas Louisiana at Havre—that is to say, prices more than four times their normal value.

Here are shown the fluctuations or average prices in each year of New Orleans middling cotton at Liverpool, according to Messrs. Hollingshead & Co.:

From October 1 to September 30.

Years.	Francs per kilog.	Pence per pound.	Years.	Francs per kilog.	Pence per pound.
1853-'54.....	1.30	5.60	1861-'62.....	3.43	14.81
1854-'55.....	1.31	5.63	1862-'63.....	5.34	23.04
1855-'56.....	1.39	6.	1863-'64.....	6.67	28.38
1856-'57.....	1.80	7.80	1864-'65.....	4.73	20.47
1857-'58.....	1.65	7.14	1865-'66.....	4.06	17.53
1858-'59.....	1.63	7.03	1866-'67.....	2.98	12.85
1859-'60.....	1.53	6.61	1867, (October).....	1.97	8.50
1860-'61.....	1.77	7.68			

See, again, the extreme prices of bas Louisiana in Havre at different periods:

Approximate prices per 50 kilograms at Havre.

Years.	Lowest, in francs.	Highest, in francs.	Years.	Lowest, in francs.	Highest, in francs.
1860.....	82	103	1864.....	310	382
1861.....	94	150	1865.....	190	343
1862.....	145	160	1866.....	165	257
1863.....	245	385			

It does not come within the scope of this note to develop the gradual and fatal consequences of an increase of price without precedent, placing the calicoes and prints of the working classes at the high prices heretofore held by the finest tissues, inverting old relations by making Liverpool a market of supply for American manufacturers,² quadrupling the cost while unsettling the value of products, and monopolizing among the most privileged the inadequate resources available for preventing the partial or complete stoppage of thousands of industrial establishments.

¹ One has to look back to 1814 to find in England the price of 30 pence (or 3.15 f.) and to 1806 in France to find that of 5 francs the kilogram.

² Re-exportation of cotton from Liverpool to the United States and Canada, 1863: American, 3,580,050 kilograms. Indian, and others, 2,937,150 kilograms. Total, 6,517,200 kilograms.

The phases of this crisis belong to the history of cotton manufacture, and we will notice only two features—the admirable resignation of the working class, deprived of work for want of cotton, and the brotherly assistance bestowed in England¹ and France by all classes of society; the remarkable bearing of French industry, and particularly that of Alsace,² which has known how to keep constant activity in its workshops.

The object sought by our work should be to state the quantity of cotton available to-day for the general market in comparison with that received in 1860-'61, before the war in the United States, and to determine, for each producing country of ancient or modern date, the part which it has contributed to the general supply during the last six years. We shall seek to establish these figures and complete them by a comparison of the respective qualities and an exhibit of the prices at different epochs of the exceptional period that we have under consideration. Before all we should make reservations as to the relative signification of some of our tables. Let it be understood that the quantities absorbed by consumption are not equal to the quantities produced, as expressed in statements of the crops.

It is admitted that no positive idea exists of the actual production of cotton in India, the estimates of statisticians differing widely, some being twice as large as others. The consumption of that country itself is immense, and this consumption varies according to the price. The same facts are repeated in the Levant on a more limited scale. Italy itself, so near us, does not give the exact figure of its production. Russia imports a certain quantity of cotton overland from Asia.

On the other hand, to avoid the arbitrary estimates habitually given of the consumption in the American manufactories, we have for many years vainly sought to obtain the number of spindles worked in the United States. Hitherto unable to obtain this information, we were upon the eve of the decennial census, which perhaps would have instructed us, when the war broke out. Under these circumstances attention ought to be fixed less upon the production of the world than upon the importation in Europe. We will make it the basis of our deductions.

The English statistics and those so remarkable which M. Ott Trümpler, of Zurich, communicates so liberally to his friends, and of which we have made great use, are made out in bales of average number of pounds. We have adopted the same units, which will be converted into kilograms in all cases where this conversion will offer special interest.

¹ In England, where the factories were sooner and more generally stopped, 457,000 workers received help before the end of 1863.

² Forget not, especially, that if so many establishments in Alsace and other places were enabled, not without great sacrifices, to be exceptions to the common rule by continuing full work, it was only by the aid of the raw material left at their disposal by the equal standing still of other wheels of industry.

Here follows the average of weights by pounds according to the Liverpool brokers, (the English pound equal to 0.4531 kilograms:)¹

Average weight of bales of cotton.

	1861.		1865-'66.		1866-'67.	
	Lbs. Eng.	Kilo.	Lbs. Eng.	Kilo.	Lbs. Eng.	Kilo.
Louisiana.....	438	198½	423	191½	441	200
Mobile.....	493	223½				
Georgia.....	440	199½				
Florida.....	499	226				
Georgia, (sea island).....	358	153	160	72½	174	79
Brazil.....	180	81½				
Egypt.....	430	195	492	223	490	222
East Indies.....	380	172	375	170	370	167½
China and Japan.....			240	109	326	147½
Other sorts.....	200	90½	230	104	230	104

Average weights of all sorts imported into England.

	Pounds.	Kilograms.
1859.....	421	190.75
1860.....	421	190.75
1861.....	415	188.
1865-'66.....	365	165.35
1866-'67.....	371	168.10

Having these preliminaries adjusted we can proceed to our inquiry, applying it directly to the sorts other than those of the United States.

II.—COTTONS OTHER THAN THOSE OF THE UNITED STATES.

GENERAL IMPORTATION INTO EUROPE.

Two seasons before the American war, (seasons from 1st October to 30th September:)

	Bales in 1859-'60.	Bales in 1860-'61.
Cotton from India.....	700,000	782,000
Cotton from other countries*.....	292,000	276,000
Total.....	992,000	1,058,000

* These cottons were principally those of Brazil and West Indies, including a small portion from Hayti, Central America, and the South Seas.

Average of the two years, 1,025,000 bales.

In the face of a consumption which was then more than 4,000,000 bales, the figures of 292,000 and 276,000 bales, averaging 284,000 bales, presented but a feeble interest. Let us see what they have become :

¹ These are the figures given in the original. It is usual to regard 0.4536 kilograms as the equivalent of the avoirdupois pound.

General importation into Europe of the same sorts:

Importation, by bales, into Europe.

	Bales in 1865-'66.	Bales in 1866-'67.
Cotton from India.....	1,992,000	1,524,000
Cotton from Brazil.....	518,000	481,000
Cotton from China and Japan.....	19,000	9,000
Cotton from Egypt.....	248,000	228,000
Other sorts, from Turkey, Italy, West Indies, Central America, South Seas, Persia, Algeria, and Africa.....	397,000	359,000
Total.....	3,174,000	2,601,000

Importations of Europe before and after the war in the United States.

Annual consumption.	BEFORE THE WAR.				AFTER THE WAR.				Average difference.				
	1859-60.		1860-61.		1865-66.		1866-67.						
	Weight per bale.	Thous'nds of bales.	Thous'nds of bales.	Thous'nds of kilog.	Weight per bale.	Thous'nds of bales.	Thous'nds of kilog.	Thous'nds of bales.					
From India.....	{ 280 lbs } { 172 k }	700	120,400	782	134,504	{ 375 lbs } { 170 k }	1,992	338,640	{ 370 lbs } { 167 1/2 k }	1,524	255,270	1,017	169,503
From Brazil.....	{ 180 lbs } { 81.5k }	127	10,350	141	11,491	{ 160 lbs } { 72.5k }	518	37,555	{ 174 lbs } { 79 k }	481	37,999	365	26,856
From Egypt.....	{ 430 lbs } { 195 k }	135	26,325	105	20,475	{ 492 lbs } { 223 k }	248	55,304	{ 490 lbs } { 222 k }	228	50,616	118	29,560
From other sorts.....	{ 200 lbs } { 90.5k }	30	2,715	30	2,715	{ 230 lbs } { 104 k }	416	43,264	{ 230 lbs } { 104 k }	368	38,272	362	38,053
Export from the United States for Europe, and the unconsumed stocks held over.....		992	159,790	1,058	169,185		3,174	474,763		2,601	382,157	*1,862	363,972
		3,774		3,128			1,565			1,475			

* 1,862,000 bales weighing 263,972,060 kilograms.

The report of the jury of the Exposition at London estimated as follows the consumption of Europe in 1860-'61:

Imported from—	Kilograms.
United States.....	716, 000, 000
East Indies.....	92, 000, 000
Egypt.....	27, 000, 000
West Indies.....	10, 000, 000
Other sorts.....	5, 000, 000
	<hr/>
	850, 000, 000

or 4,388,000 bales, averaging, at 188 kilograms, 825,000,000 kilograms only.

We proceed to put in comparison the European consumption in 1861-'62 and 1862-'63, the years when the least American was used and when consumption fell to its lowest point.

Consumption 1861-'62, (applying the average weights of 1861 in the absence of others:)

		Kilograms.
From the United States...	562, 000 bales, at 192 kil...	107, 900, 000
From India, (East).....	1, 090, 000 bales, at 172 kil...	187, 500, 000
From Egypt.....	164, 000 bales, at 195 kil...	32, 000, 000
From Brazil.....	122, 000 bales, at 82 kil...	10, 000, 000
Other sorts.....	55, 000 bales, at 90 kil...	5, 000, 000
	<hr/>	
	1, 993, 000 bales.....	342, 400, 000
	<hr/>	<hr/>

Consumption, 1862-'63:

		Kilograms.
From the United States...	133, 000 bales, at 192 kil...	25, 500, 000
From East Indies.....	1, 464, 000 bales, at 172 kil...	251, 800, 000
From Egypt.....	227, 000 bales, at 195 kil...	44, 200, 000
From Brazil.....	160, 000 bales, at 82 kil...	13, 100, 000
Other sorts.....	162, 000 bales, at 90 kil...	14, 600, 000
	<hr/>	
	2, 146, 000 bales.....	349, 200, 000
	<hr/>	<hr/>

See again the figures of 1866-'67, which indicate a well-marked turn back to the normal situation:

		Kilograms.
From the United States...	1, 548, 000 bales, at 200.....	309, 600, 000
From the Indies.....	1, 592, 000 bales, at 167½.....	286, 600, 000
From Egypt.....	315, 000 bales, at 222.....	47, 700, 000
From Brazil.....	450, 000 bales, at 79.....	35, 500, 000
Other sorts.....	342, 000 bales, at 104.....	35, 600, 000
	<hr/>	
	4, 147, 000 bales, or.....	695, 000, 000

at 168 kilograms, average would be 696,700,000 kilograms.

To complete this statistical exhibit, without pretending to be rigorously exact, which is impossible, but at least with a sufficient degree of

approximation, we will give here the analysis of the 368,000 bales of other kinds than those of the following countries: America, the Indies, Brazil and Egypt, imported to Europe from the 1st October, 1866, to the 30th September, 1867, viz: Importations in England, 153,000 bales; importations direct to the continent, 225,000 bales; total 378,000 bales, from which to deduct 10,000 bales re-exported from the continent to England. (The cottons of Naples and Sicily, which remain in the places of production, or which went to other parts of Italy by Genoa and Leghorn, do not appear in this table.)

IMPORTATIONS INTO EUROPE, 1866-'67.

Analysis of the 368,000 bales of other sorts.

From—	Ports of England.	French ports.	Other ports of the continent.	From—	Ports of England.	French ports.	Other ports of the continent.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>		<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
Peru	53,000	14,000	.....	Algiers .....	.....	4,000	.....
Central America..	43,000	20,000	44,000	China and Japan..	19,000	.....	.....
Persia and Malta..	28,000	77,000	58,000				
Italy .....	.....	6,000	2,000	Total	143,000	121,000	104,000

From the preceding tables we have the following results:

1. That the total consumption of Europe, stated at 850,000,000 of kilograms for 1860-'61, is reduced, by the effect of high prices, to 349,000,000 kilograms in 1862-'63, and to 342,000,000 kilograms for 1861-'62, which, taking the average of these two quantities, shows a diminution of 505,000,000 of kilograms, or nearly 60 per centum of the consumption in the normal year 1860-'61. It has again risen to 694,000,000 for the year 1866-'67, which shows a diminution yet of 156,000,000 of kilograms, or 18 per centum below that of 1860-'61.

2. That the quantities which have been contributed to the general supply by the countries formerly productive and those of new and accidental culture during the two years since the war, 1865-'66 and 1866-'67, amounted to only 31 per cent. of the consumption during the two normal years 1859-'60 and 1860-'61 before the war, thus:

Countries formerly producing cotton—

	Kilograms.
20 per cent., India.....	169,500,000
3 per cent., Brazil	27,000,000
3½ per cent., Egypt.....	29,500,000
	<hr/>
	226,000,000

Countries newly producing—

4½ per cent.....	38,000,000
	<hr/>
Total.....	264,000,000

or 31 per cent. of the consumption in the normal year 1860-'61, of which 26½ per cent. from old cotton-producing countries, 4½ per cent. from countries where the culture is accidental or wholly new.

It should be noted that we have included among the countries of accidental or irregular culture the Levant, Italy, Malta, Persia, West Indies, Algeria, Spain even, and many other countries which, before the secession war, contributed their quota, more or less, according to the course of the day, to the supply of the European markets.

A more minute analysis exhibiting the extent of the temporary capacity of supply by the countries not usually productive, and the rank of those (other than the United States, India, Brazil and Egypt) which contributed to the supply of the 368,000 bales imported into Europe in 1866-'67, is given in the official table, placed in the order following:

	Bales
Turkey, Greece, Persia, Malta, Italy, &c.....	171, 000
West Indies and Central America.....	107, 000
Peru	67, 000
China and Japan.....	19, 000
Algeria.....	4, 000
	368, 000

which arrangement assigns to the Levant the first rank among the countries of secondary production.

To sum up, we find that British India has brought the most effective aid to Europe in her distress, and that this aid, or excess of their usual exportation, has only been the equivalent of 20 per cent. of the normal consumption of Europe, the remaining 11 per cent. being furnished in three nearly equal parts by Brazil, Egypt, and the countries where cotton culture is new.

This proves, in the matter of cotton-growing, that if the productive faculties seem to be in some sort indefinite with the stimulant of high prices and the infinite areas which remain accessible to this culture, time (that is to say, a sustained confidence in the maintenance of these high prices and the delays inseparable from a culture both difficult and touching, under certain relations to industry, the important process of cleaning from seed) is an element with which it is necessary to reckon—more, even, than with the success of the plant itself and that which it will always carry, whatever may be done—the inevitable hindrances to the restoration of an equilibrium too rudely broken.

III.—STATISTICS OF PRODUCING COUNTRIES.

In the second part of this report we shall follow summarily the countries which are the principal producers of cotton, in the different phases of their culture, before and after the war, in giving, with the indications of the prices of these last years, some details upon the qualities of the products.

A general table, recapitulating the production for these last years of cotton dearth, will end our work.

UNITED STATES.

The American statistics have naturally been interrupted by the war.

We borrow the following figures, which offer some interest in spite of the vacancies, from the Circular of Mr. Wm. P. Wright, of New York:

Statistics of production and consumption in the United States.

	Apparent crop.	Consumption in the north.	Consumption elsewhere.	Total consump- tion in the United States.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
1866-'67.....	1,9951,988	*573,367	280,672	854,039
1865-'66.....	2,151,043	540,652	126,640	667,292
1860-'61.....	3,786,986	650,557	193,383	843,740
1859-'60.....	4,675,770	762,521	185,522	978,043

*Mr. Wright's figures follow the tables of the New York Shipping List, which, in its division of the American consumption in 1866-'67, erred by assigning to the northern consumption 135,000 bales less than the actual, and a corresponding excess to the consumption elsewhere.—B. F. N.

By these figures it may be seen what a terrible shock the American culture received (fallen, they say, to 500,000 bales for 1863-'64, and 300,000 for 1864-'65) since the crop formerly supplied an annual average of 4,000,000 bales; that it attained in 1866-'67 to only 2,000,000 of bales, and that it is estimated at only 500,000 bales more for the following season.

Let us state that the beautiful long staples of Georgia have wholly disappeared from the market. The classes 1, 2, 3, are completely exhausted, and as the islands of Georgia and Carolina, alone capable of producing the most beautiful kinds, have been from the first devastated throughout, it is probable that the fine specimens, results of a culture wholly artificial and of seed selected of the best, year after year, will not be restored for two or three years. The manufacture has, however, known how to satisfy its necessities by spinning the grades less fine; but the prices, 80 to 100 pence the pound English, (24 francs the gross kilogram,) paid for the choice Georgia sea island cotton, will not the less remain a testimony of an unheard-of and exceptional penalty.

BRITISH INDIA.

A memorial address by the Cotton Supply Association of Manchester gives the following details: the sum paid to India for cotton has risen from less than 88,000,000 francs in 1860 to more than 705,600,000 francs in 1864; more than 630,000,000 francs were paid to India in 1865, and more than 636,000,000 in 1866.

Here we give the comparison of productions :

GREAT BRITAIN ONLY.

Five years before the war.

Year.	Importation.		Official value.	
	<i>Bales.</i>	<i>Pounds.</i>	<i>Francs.</i>	
1856.....	463,000	3,572,000	89,300,000	
1857.....	680,500	5,458,000	136,450,000	
1858.....	361,000	2,970,000	74,250,000	
1859.....	510,700	3,939,000	98,475,000	
1860.....	563,200	3,373,000	84,325,000	
Making an annual average of.....	.....	3,862,000	96,575,000	

Five years following the beginning of the war.

	Importation.		Official value.	
	<i>Bales.</i>	<i>Pounds.</i>	<i>Francs.</i>	
1861.....	986,000	9,459,000	261,475,000	
1862.....	1,072,439	22,042,000	551,050,000	
1863.....	1,223,700	34,700,661	867,516,525	
1864.....	1,399,500	38,214,723	955,368,075	
1865.....	1,266,520	25,005,856	625,146,400	
Making an annual average of.....	.....	25,884,646	647,116,150	

Prices were quoted as follows at Liverpool for *fair Dhollera*, (Hollinshead's Circular) for the kilogram, and in francs: 1859-'60, 0.46 francs; 1860-'61, 0.57 francs; 1861-'62, 1.03 francs; 1862-'63, 1.83 francs; 1863-'64, 2.45 francs; 1864-'65, 1.47 francs; 1865-'66, 1.42 francs; 1866-'67, 1.06 francs.

According to the *Annales du Commerce Extérieur*, the importations of India cottons direct to France have been, in—

	Metrical tons,
1860.....	1,828
1861.....	2,407
1862.....	2,989
1863.....	9,339
1864.....	12,617
1865.....	9,645

Added to which should be all the cotton (Indian) received from London, from Liverpool, and by transit for Switzerland and the Zollverein, the figures of which we have not at hand.

Of cotton from India consumed.

	By all Europe.	By Eng- land.	By the con- tinent.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
1859-60	592,000	207,000	385,000
1862-'63	1,464,000	905,000	559,000
1866-'67	1,592,000	815,000	777,000

The samples of cotton from the Indies, grown from American and Egyptian seed, have, in several experiments, proved that with more care and better processes of culture, India can realize vast progress in the improvement of qualities.

A considerable step has been taken in many districts; they will be still more decisive because of the appointment of agricultural commissioners who know the language of the country and the character of the natives. Already the government of India has named one for the districts of the central provinces and the Berars, and it is a question of extending the same measure to the presidency of Madras, including Coimbatore, and at Scinde for the parts more to the north.

English industry, by its variety of manufactures, has, more than that of France, the opportunity to use profitably the cottons of India in their imperfect state, as well as when properly cleaned, as they may appear in market; however, thanks to improved machinery, a rapid and considerable progress has at the same time been made in our country in the use of these common sorts, and we believe that their use advantageously acquired will continue, and, to a certain degree, aid the establishments producing coarse fabrics.

[The remainder of the section treating of the cotton culture in India is devoted to a description of the public works for irrigation—"Grands travaux d'irrigation"—and an enthusiastic statement of their actual and possible benefits for both transportation and irrigation. Want of space compels its omission here.]

EGYPT.

The importation of this excellent sort of cotton, suitable for the spinning of numbers of yarn, fine and half fine, (from 50 to 120) but often used for medium numbers, (28 to 40,) in consequence of the scarcity of American cotton, had been as follows in Europe before the war:

	Bales.
1856-'57	204,000
1857-'58	124,000
1858-'59	159,000
1859-'60	266,000

Annual average 188,250 bales, of 430 pounds English, (195 kilograms)=36,660,000 kilograms.

We have seen the consumption of Europe raised successively to—

	Bales.
1862-'63.....	227,000
1863-'64.....	124,000
1864-'65.....	374,000

of 490 pounds, English, (222 kilograms) 83,000,000 kilograms.

England is said to have received 365,000 hundred-weight, English, in 1861, or 18,250,000 kilograms, against 1,580,000 hundred-weight, English, in 1865, or 79,000,000 kilograms.

These remarkable results were due to the natural richness of the soil, and to the propitious measures decreed by the Viceroy; exemption from contributions for the new lands devoted to the culture of cotton, gifts of seeds, grants of the use of the steam-ploughs and other perfected agricultural machines, employment of better gins, all had been put to work for the encouragement of this cultivation. But it is only necessary to say that the first power moving this important increase had been, there as elsewhere, the high price of this raw material. Fair Egyptain (*"jumel fair"*) which was worth in Liverpool, the principal market for its importation, 1 franc 96 centimes the kilogram in January, 1861, rose to 6 francs 80 centimes in October, 1863. There was in this extraordinary advance a premium which could not but stimulate the production; it has been indeed greatly developed, but it would have been much more so without the epidemic which ravaged the country in 1865-'66.

The quality of the staple varies from one season to another, and depends much in the whole crop upon the general conditions that may favor or impede the plant to the time of its maturity; the finer and higher the quality sought to be produced, the more it is subject to these variations. With this reservation it may be admitted that, contrary to what often happens, the extension of this culture and coincidentally that of the relative production by "*feddan*," the agrarian measure (or division of lands) of Egypt have not impaired the quality of cotton there. The effect of the epidemic in 1865-'66 was shown in the temporary lowering of the quality; but on the other hand, the perfected cotton-gins of Platt had given to consumption a better cleaned material properly handled, (that is, without broken staples; and the use of these gins is made so common by the erection of vast establishments for their construction, that the McCarthy gin is no longer found in market,) which indicates for this operation a marked superiority over the same grade cleaned by the Egyptian mill or by the roller gin, these means of cleaning the cotton from the seed being now the exception. * * *

BRAZIL.

We designate under this generic name cottons of diverse qualities and values, which, by the use of different methods of cleaning from the seed, are rendered even more dissimilar in market. Taking the crops throughout, the cotton of Brazil (the types of which have heretofore been repre-

sented by the Bahia and Pernambuco cottons) have rather depreciated in value. One seldom fears to employ the saw-gin to obtain a mistaken economy from the expenses of cleaning saved, and a larger net weight, without ceasing, on the other hand, to leave in the cotton, as cleaned by other processes, a certain proportion of seeds which the buyer takes for cotton. We hope this last abuse will cease.

The sorts of Brazilian cotton which come upon the European markets, are the Aracati, Bahia, Céara, Camouchi, Pernambuco, Parahyba, Minas, Maceio, Maranham, Para, Rio Grande.

The price before the war was $8\frac{1}{2}$ to 9 pence, or 1.75fr. to 2.10fr. the kilogram.

The price at the moment of highest cost was 29 pence, or 6.70fr. the kilogram.

Before the war Europe received only the following quantities from Brazil :

1856-57.....	165,000 bales.	||	1859-60.....	127,000 bales.
1857-58.....	124,000 bales.	||	1860-61.....	96,000 bales.
1858-59.....	116,000 bales.	||		

of 180 pounds, or 81.5 kilograms each=7,800,000 kilograms.

The consumption of these cottons, (of which England has taken two-thirds,) under the force of circumstances, has risen successively to—

1861-62.....	122,000 bales.	||	1864-65.....	324,000 bales.
1862-63.....	160,000 bales.	||	1865-66.....	423,000 bales.
1863-64.....	208,000 bales.	||	1866-67.....	450,000 bales.

of 174 pounds, or 79 kilograms each=35,500,000 kilograms.

It has, then, more than quadrupled.

The whole of the vast territory of the Brazilian empire is suitable to the culture of cotton; but it is chiefly the south (albeit it is the north which now exports) which supplies the finest qualities, of which that of Rio Grande should be cited before all. It is agreed by all that this culture is susceptible of an immense development.

OTHER SOURCES OF PRODUCTION.

A quantity of 368,000 bales, or in weight $4\frac{1}{2}$ per cent. of the 850,000,000 kilograms of cotton which Europe consumed in 1860-'61—such is the account of what has been produced by the efforts made to introduce cotton culture in new countries, and to extend it in countries where it had already existed on a small scale. It is at once little and much; little, if compared with the wants to be satisfied; much, if we take account of the difficulties overcome! It is the fact, that in this culture the capacity to produce is far from being a pledge or giving assurance of production. The conditions of capital, of skill, and labor; those even of political or administrative regulation, play parts of an importance nearly equal to the influences of climate and geographical situation.

It would be difficult to say at present which will be the new countries

permanently acquiring the cotton culture; but there are some where it will infallibly extend, because there it succeeds perfectly. Queensland and Tahiti stand in the first line for their long staples (*soies*.) As to those countries where the culture has been a long time established and developed, as in the Indies, Brazil, and Egypt, it is evident that from them will be received the most important assistance in a time of scarcity.

The further we advance in our task the more difficult it becomes to follow each country in its successive steps of progress in the cotton culture. The extent of a work of this kind will be better understood, and the absence of interest which would attach to it if pushed to its extreme limits, when it is known that, in addition to the sources of supply to which Europe habitually looks, there happen to be one hundred and seventy-one places of production, and that in observing the arrivals in the ports we constantly learn of new ones.

We will then only pause a moment at those which, like Turkey and Greece, are too near us not to feel the effect of our stimulations to a larger production, and in closing we will devote a few lines to our colonies.

TURKEY, GREECE, PERSIA, MALTA, ETC.

Importation into Europe, 163,000 bales in 1866-67.

In an address to the Sultan in July, of this year, on the occasion of his visit to England, the Cotton Association congratulated him that the exportation of cotton for England, from the states of his dominion, had increased from 41,212 hundred weight, (2,060,600 kilograms,) which it attained in the year 1862, to 223,000 hundred weight, (11,150,000 kilograms.) There had been, as there ought to be, under the influence of repeated encouragements, a very considerable increase, independent of an improvement of quality, from the use of better gins and seeds. The steps accomplished in respect of quantity would have been even more conspicuous but for the extreme haste attending the shipments.

Especially was there very great improvement upon the cotton of Salonica, Volo, and Pirée, both in staple and cleanliness. The contributions from Smyrna and Syria have equally presented good results, whereas the cotton from Egypt and Algeria has, on the contrary, left something to be desired in respect both of strength and length (of fibre.) The cottons of Cyprus are not improved.

ITALY.

Importation into France:

In 1861, in 1,000 kilograms.....	30
In 1862, in 1,000 kilograms.....	37
In 1863, in 1,000 kilograms.....	441
In 1864, in 1,000 kilograms.....	
In 1865, in 1,000 kilograms.....	3,150

Estimate of crops: Manchester, upon the Italian data given, valued that of 1863 at 89,000 bales of 100 kilograms;¹ an exaggerated figure. For 1865, the estimate was 8,500,000 kilograms. These statistics want exactness. The mills of the country retain a good part of the cotton which grows at their doors.

Here are yet further figures that we owe to a house in Naples, who regret their inability to give only approximations:

1. Before the American war we estimated the production of the Neapolitan provinces at 1,335,000 kilograms; that of the Sicilian provinces the same; say, together, 2,670,000 kilograms.

2. In 1864 and 1865, we estimated the production of the Neapolitan and Sicilian provinces each at 4,450,000 kilograms; together, say, 8,900,000 kilograms.

Whereas the exportation (it being relieved of the duty imposed upon the foreign article) in 1864 was 2,581,000 kilograms, and in 1865 it was 4,005,000; the remainder has thus been consumed at home, especially by the mills in the north part of Italy.

SPAIN.

The decrees of 1810 and 1811, which regulated the right of admission for cotton and wool into France, treat with comparative favor the cottons of Naples (Castellamare) and those of Spain, (Motril;) but the differential duty disappeared in 1814, and soon with them the names even of the Castellamare and Motril cottons, which the generation that preceded us had heard so often while the continental system endured.

We have mentioned the resumption of the cotton culture in Italy. It was in 1865 only that it appeared to have had a place at Motril, a small port near Grenada.

They estimate the crop of 1865-'66 at 630,000 kilograms; of 1866-'67 at 840,000 kilograms; and it is supposed that the crop of 1867-'68 will attain to 1,000,000 kilograms.

The larger part of these cottons have been spun by an establishment at Malaga. Only a small quantity has been shipped to England, and none of it to France. It is sold at the current price of Egyptian, with which it corresponds in quality.

Some cotton has been grown at Iviza, (Balearic Isles,) and sold to the spinners at Barcelona.

These appear to be the limits of the attempts at cotton culture in Spain.

¹Weights of bales fictitious, for the bales of Castellamare are reckoned among the heaviest that appear in market.

FRENCH COLONIES.

The following are the quantities taken for consumption in France, for the several years and the places of production, (in kilograms :)

	1861.	1862.	1863.	1864.	1865.
Algeria.....	246,000	134,000	157,000	443,000	560,000
Gaudaloupe				105,000	242,000
Martinique					50,000
French India.....	65,000	187,000		639,000	304,000
Sénégal Corse, pour mémoire.....					

The importation of cotton from Algeria constituted in 1860 and 1861 only .05 (five hundredths of one) per cent. of the general importation; but this quantity, so insignificant in appearance, represented not less than five or six per cent. of the manufacturing demand for fine cottons, long staple, and has rendered precious service. So we shall be happy to see realized the hopes which depend upon the great works of damming destined to bestow upon Algeria the means of irrigation, indispensable to its cotton culture, so often compromised by drought.

Guadeloupe, which has produced about one-half less than Algeria, appears to be stopped in its attempts; and it is grievous, for its fitness to produce the finest sort of long staple remains undisputed.

Guiana, Cochin-China, Senegal, Corsica, even our own departments du Midi, which had for a time believed they could enter the lists, forgetting that they lacked two months of sun, are not outside the limits of attempts more or less successful, of which the results are too limited to enter into statistics.

IV.—SOURCES OF SUPPLY OF THE VARIOUS KINDS OF COTTON EMPLOYED IN MANUFACTURES, 1864 TO 1867.

[Long-stapled sorts are marked *.]

Alabama.....	United States.	Bownuggur	Hindustan.
Arica	*Peru.	Barri	Italy.
Aricati.....	*Brazil.	Bagdad	Turkey in Asia.
Adenos	Levant.	Ceylon	British India.
Arkansas	United States.	Candia	Archipelago.
Angola	West Africa.	Camptah	Hindustan.
Algeria	*Africa.	Cassaba	Smyrna, (Levant.)
Armenia	Asia.	Caraccas	*Central America
Acre, (St. Jean d').....	Syria.	Cyprus	Levant.
Akoot	Hindustan.	Céara	*Brazil.
Banda	*Dutch possessions.	Candahar	East Indies.
Barbadoes.....	*Antilles.	Carthagena	*Venezuela.
Bahia.....	*Brazil.	Coimbatore	Hindustan.
Broach	Hindustan.	Côte Ferme.	
Bourbon	*French possessions.	Cumana	*Central America.
Bermuda	*English possessions.	Castellamare	Italy.
Bahamas.....	English possessions.	Cayenne	*French Guiana.

China.	
C. mouchi	*Brazil.
Carolina	United States.
Cuba	*Spanish Antilles.
Casma	*Peru.
Caramania	Turkey in Asia.
Cephalonia	Ionian Isles.
Cote d'Or	Senegal.
Caucasus	Asia.
Constantinople	Turkey.
Cocanadah	Hindustan.
Catania	Italy.
Calabria	Italy.
Dhollerah	Hindustan.
Dharwar	Hindustan.
Demarara	*English Guiana.
Dardanelles	Turkey in Europe.
Elias	*Peru.
Feejee Islands	—
Florida	*United States.
Francavilla	Italy.
Georgia, (uplands) ...	United States.
Georgia, (Sea Island) ..	*United States.
Guadaloupe	*Little Antilles.
Guayaquil	*Ecuador.
Grenada	Spain.
Galles of the South ...	East Indies.
Hayti	*Grand Antilles.
Hinghenghaut	East Indies.
Jumel	*Egypt.
Jamaica	*West Indies.
Idelep	Syria.
Java	*Isles of Sunda.
Japan	Asia.
Jujures	—
Jumboreer	Hindustan.
Kandish	Hindustan.
Kiragach	Levant.
Kurachee	Hindustan.
Kinick	Levant.
Kirekly	Hindustan.
Louisiana	United States.
La Guayra	*Venezuela.
Lagos	Africa.
Liberia	Africa.
Livadi	Greece.
Loanda	Africa.
Latakia	Syria.
Majorca	*Spain.
Manjalore	*Hindustan.
Minas	*Brazil.
Macedonia	Turkey.
Malta	English possessions.
Maccio	*Brazil.
Mételin	Turkey.
Madras	Hindustan.
Martinique	*Little Antilles.
Mobile	United States.
Maranham	*Brazil.
Mazzara	Italy.
Marocco	Africa.
Nevis	Little Antilles.
Navigator's Island ...	Polynesia.
Nasca	*Peru.
Naplouse	Syria.
Natal	Africa.
New Orleans	United States.
Nicaragua	*Central America.
Oomruwuttee	Hindustan.
Philippine islands ...	South Seas.
Payta	*Peru.
Persia	Asia.
Pisco	*Peru.
Paraiba	*Brazil.
Porto Rico	*Antilles.
Para	*Brazil.
Puerto Cabello	*Venezuela.
Paramaribo	*Dutch Guiana.
Pireus	Greece.
Pouille	Italy.
Pacchino	Italy.
Pernambuco	*Brazil.
Queensland	*Australia.
Rangoon	India.
Realejo	*Central America.
Rio Grande	*Brazil.
Red Western	Madras.
Rio Hacha	*South America.
Rarotonga	South Sea islands.
Surat	Hindustan.
Smyrna	Turkey in Asia.
Senegal	Africa.
Surinam	*Dutch Guiana.
Sonboujeac	Levant.
Scinde	East Indies.
Somanco	—
Salonica	Turkey.
Syria	Asia.
Shanghai	China.
Salem	*Hindustan.
Seiacca	Italy.
Siam	*Asia.
Singapore	Asia.
Seychelles	Indian ocean.
Sardinia	—
South Seas	—
Tahiti	*Society Islands.
Tobago	English Antilles.
Tinnevilly	Madras.

Tennessee.....	United States.	Tampico.....	Mexico.
Tortola.....	*Antilles.	Tarranto.....	Italy.
Trinidad de Cuba....	*Spanish Antilles.	Uruguay.....	South America.
Texas'.....	United States.	Virginia.....	United States.
Toomels.....	Hindustan.	Varinas.....	Venezuela.
Tarsus.....	Turkey in Asia..	Venezuela.....	*South America.
Tripoli.....	Barbary states.	Volo.....	Macedonia.
Trebizond.....	Asia.	Weraoul.....	Hindustan.
St. Thomas.....	*Danish Antilles.	Yucatan.....	*Mexico.
Tunis.....	Barbary States.	Zante.....	Ionian Isles.
Terranova.....	Italy.	New Zealand.....	English possessions.

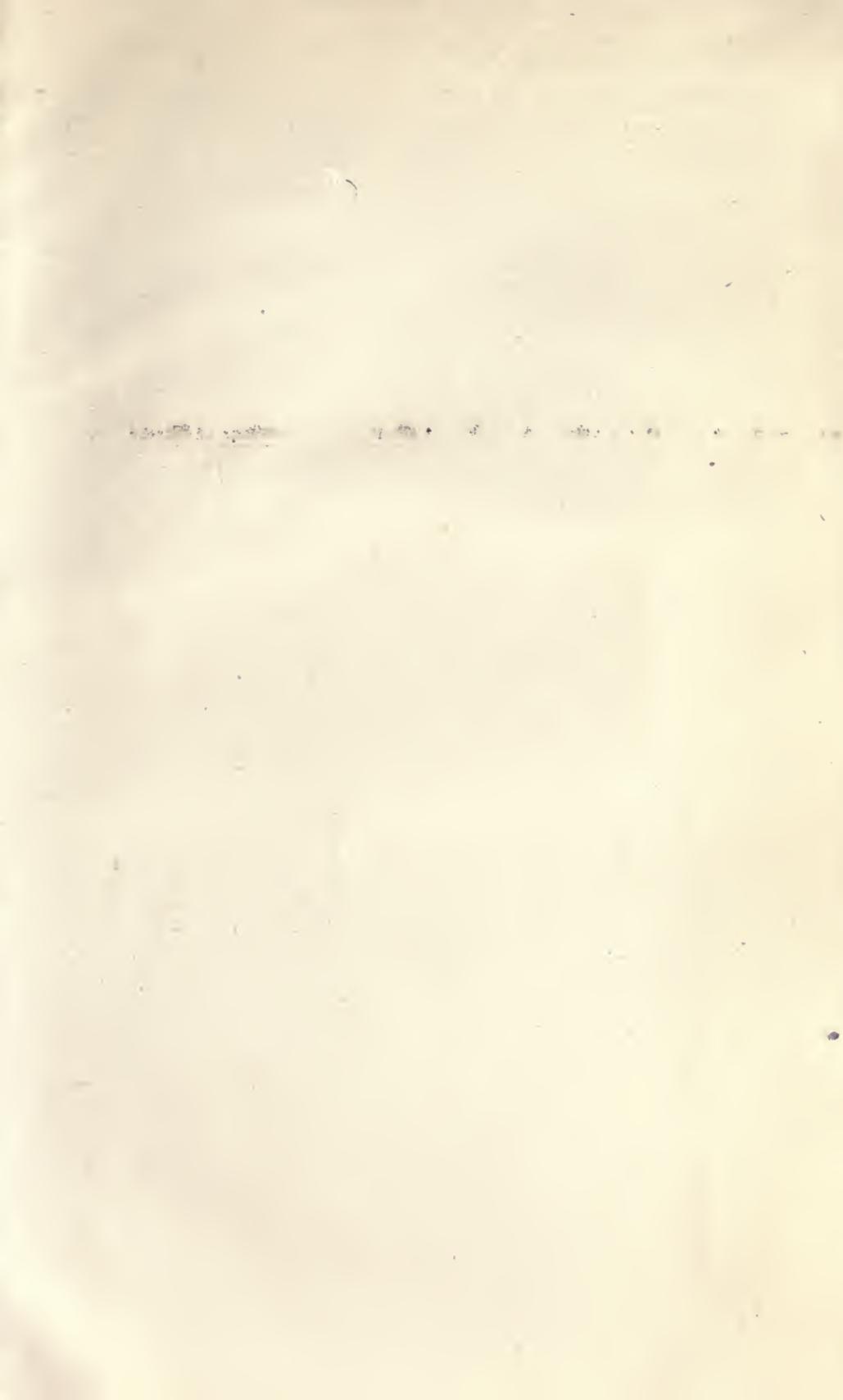
The foregoing catalogue concludes the section of the jury report by M. Dollfus upon the *production of cotton*.

This catalogue is given in full here because it is nearly identical in extent and details with the list of samples of the cotton of all countries exhibited at the Paris Exposition of 1867 by the Manchester Cotton Supply Association, and with the excellent collection of samples supplied to the United States Commission to the Exposition, by the courtesy of the same association, as described in the first part of this report.









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